

THE CULTIVATOR.

FORBES.

VAN FRANKEN, N.Y.

THIRD

To Improve the Soil and the Mind.

SERIES.

VOL. III.

ALBANY, MARCH, 1855.

No. III.

The Annual Meeting of the N. Y. State Ag. Society.

The Society met in the Assembly Chamber at 12 o'clock, m., Wednesday, Feb. 14, and was called to order by the President, WILLIAM KELLY, Esq., of Rhinebeck, who congratulated the Society upon the large attendance present, and expressed the hope that the deliberations of the meeting would result in the best good of the Society.

On behalf of the Executive Committee, B. P. JOHNSON, the Secretary, read an interesting report, reviewing the doings of the Society during the year, and referring to the injury sustained from drouth, the wheat fly, &c. Underdraining, irrigation, artificial manures, and other modes of improving the agriculture of the state were alluded to. The Treasurer's report showed that the receipts during the year (including the balance on hand) were \$222 96.13, the expenditures \$19,723.77, leaving on hand \$2,572.36. The reports were accepted and adopted.

At the last annual meeting, AMBROSE STEVENS gave notice of a proposition to amend the Constitution of the Society with a view to holding the fairs permanently in one or more places for a term of years. Mr. CLARK moved that this amendment to the Constitution be adopted, to take effect after the year 1855. An animated discussion ensued. The motion was lost—ayes 63—noes 107.

Mr. HALL of Onondaga, moved the appointment of the usual committee of 24—three from each Judicial District—to report the names of Officers for the ensuing year, and to recommend a place for holding the next annual Fair. Agreed to.

The vote in this committee, for location of the fair, was as follows, Utica 13; Elmira 10; Watertown, 1. The Committee recommended that the place having the highest vote should be selected, if the requisite bonds be furnished—if not, then the place having the next highest, and so on. They also recommended the following officers for the ensuing year:

President—Judge SAMUEL CHEEVER, of Saratoga.

Vice Presidents—JOHN C. JACKSON, ISAAC E. HAVILAND, GEORGE VAIL, JOHN McDONALD, JOHN A. SHERMAN, S. P. CHAPMAN, D. C. VAN SLYCK, W. W. WEED.

Executive Committee—Additional Members—T. S. FAXTON, S. G. FAILE, CHARLES MORRILL, ANTHONY VAN BERGEN, W. C. WATSON.

Corresponding Secretary—B. P. JOHNSON.

Recording Secretary—LUTHER TUCKER.

Treasurer—B. B. KIRTLAND.

The Hon. A. B. DICKINSON moved to substitute Elmira for Utica as the place for holding the Fair. Messrs. BALDWIN, MORRILL, TOMPKINS & PETERS sustained this change, and Mr. HALL opposed it. The vote was taken on the question, and resulted in favor of Mr. DICKINSON's amendment, ayes 107—noes 80.

Elmira, therefore, is chosen as the place for holding the next Annual Fair.

The report of the committee in regard to officers was adopted; and the gentlemen named were unanimously elected.

In the evening Dr. FITCH delivered a lecture on the Entomology of the state, which was listened to by a large and interested audience.

On Thursday evening Prof. CARR delivered an interesting lecture on Chemistry. The closing address of the President followed. It was able, eloquent and practical, and though late in the evening was listened to with great interest. Mr. KELLY then introduced Judge CHEEVER the President elect, who made a few appropriate remarks. A vote of thanks was then passed to Prof. CARR and Mr. KELLY and a resolution unanimously passed recommending the legislature to continue the appropriation of \$1000 per annum to Dr. Fitch for entomological investigations.

The show of fat cattle and sheep was not large, owing in part to delays on the railroads. There was, however, some very excellent animals exhibited. The Cotswold sheep of E. Gazley, Clinton, Dutchess Co., were much admired. Three Leicester ewes, shown by E. W. Cady, Dryden, particularly pleased us. Mr. C. also showed a half bred Leicester and common Merino, which proved that this cross makes a valuable sheep for the butcher. A six year old steer weighing about 3,500 lbs. belonging to JOHN LEE, Cambridge, Washington county, was a prominent feature of the show yard. The show of pigs was small.

At the Agricultural Hall the show of winter fruits, grains, vegetables, meats and poultry, though not large was excellent in quality. E. S. HAYWARD, Brighton, Monroe Co., N. Y., showed a fine collection of apples, consisting of 26 varieties. WM. DAVIDSON, Hartwick, Otsego Co., 32 varieties. J. H. WATTS of Rochester, exhibited 14 varieties, amongst them some very fine specimens of the Northern Spy. O. HOWLAND, Auburn, showed five bushels of two rowed barley, and five bushels of four rowed, which we believe weighed 54 lbs. per bushel. It is the finest barley we recollect to have seen in this country. D. CONRADT showed five bushels of Tea spring wheat, of excellent quality. J. H. ZIMMERMAN of Pamelia, Jefferson Co., showed five bushels of what he termed Magnum Bonum wheat, a spring variety, a single ear of which he found some few years since in a field of wheat, and which he has cultivated with great success. He sold it at fifty cents a quart, and we believe disposed of the whole five bushels. We are very far from wishing to do Mr. ZIMMERMAN an injustice, but we cannot but express our conviction that this is the same variety as that known as the Mummy wheat, and which has been cultivated for some years in various parts of the country. It is figured in LOUDON'S Encyclopaedia, under the name of Egyptian or many-spiked wheat (*T. compositum*). It is cultivated in some places in England and is "in little estimation." LOUDON calls it a winter variety.

Ditching or Blind Draining.

MESSRS. EDITORS—I have been practicing some, and thinking much of late, on the subject of ditching, or blind draining, as we term it here. High manuring, rotation of crops, deep and thorough plowing, and subsoiling, are all good in their places. But first of all, in my opinion, as far as practicable, the land should be drained. It is almost useless to subsoil our tenacious lands without it, as that has already been done more thoroughly by the frosts of winter, than it is possible for us to do with any implement now in use; still we find them settling into a state, as impervious to roots, air, or water, as ever.

A systematic course of draining would be impracticable and useless, on most of my farm. Its foundation being rolling, composed of ridges of clay loam, interspersed with swales of black muck, more or less springy, resting upon a hard-pan subsoil. In these swales I dig my ditches, following their natural course, throwing out occasionally lateral ones to reach springy spots, or as the nature of the land seems to require. I dig my ditches thirty to thirty-six inches deep, (I prefer the latter) by fifteen at bottom, the sides nearly perpendicular. I lay them wholly of stone, in which, in some particulars, I differ from any mode I have ever seen adopted. I commence by flagging the bottom with refuse stone, $\frac{1}{2}$ to one inch thick, obtained from a limestone quarry on my farm. I then lay a tier on either side, of hard-heads of the dimensions requisite for leaving an open throat when capped, of 4 to 5 inches square; next, cap the whole with flat stones from the quarry, of sufficient strength to insure against breaking, covering the joinings with thin seals to prevent the soil from washing in. A man will lay of this part, 10 to 12 rods per day. An ordinary load of the flat stone will lay 4 to 5 rods. I then fill the ditch to within one foot of the surface, with small round stone picked from the field, and shoveled directly from the wagon into the ditch, taking care to throw the largest at the bottom. Next cover with a thin layer of straw, weeds or brush; then with the shovel throw on about three inches of the hard-pan earth. I prefer this to inverted sods, which, when they decompose, I think will be liable to fall in, and partially fill the ditch. Next with team and scraper cover the whole, beginning at one end, turning the team over the finished part to reload, leveling it down and leaving it in fine condition. A man, team, and boy to drive, will cover 50 to 60 rods per day.

I am satisfied that such ditches in such locations, "will pay." But I have some land, I must confess I am skeptical as regards the propriety of attempting to drain; land, the subsoil of which is so tenacious that water will stand in a "foot print" apparently until it evaporates. I have improved it much by deep plowing, mixing the surface with the subsoil, but this is not all it seems to need. Can such land (the like of which there is much about here) be blind drained? C. Amsterdam, Montgomery Co., N. Y.

REMARKS.—There can be no doubt that such land can be underdrained. The most sterile and impervious clay soil we ever saw, lying nearly on a dead level, was thoroughly drained, and rendered highly productive, by cutting drains $3\frac{1}{2}$ feet deep, and 16 feet apart, and laying them with inch and a half bore draining pipes. The clay, thrown out of the drain, was shoveled in again on to the tiles, without stones, straw, sod, or anything to cover them, and yet the water found its way through. We saw a somewhat similar instance near Rochester, this past season. In the fall of 1853, a drain was cut through a stiff clay soil, which, it was thought by the practical farmers in the neighborhood, could never be under-drained, so impervious

did it appear. The drain was cut about 3 feet deep and eighteen inches wide, and laid with stones. It worked well, discharged a large quantity of water, and drained the land on each side of it, three or four rods as was manifest from the greatly increased luxuriance of the wheat. The owner is satisfied, not only that such land can be underdrained, but also that it will pay to do it. We might also mention that, from actual experiment, he has come to the conclusion that tiles are cheaper than stones, since the drain need not be more than half the width, and there is less trouble in laying them.

Lightning Rods.

Intending to put up lightning rods, I was pleased with the directions in the June No.; since then, some writers claim that iron is not sufficient, but that a copper strap with serrated edges, is much more safe, and about as cheap. Is it so or not? Would not a strap (unless so heavy as to be quite expensive,) be liable to melt? Would steel points be better than iron? A word or two in reply would be very gratefully received. P. P.

In ordinary cases, a sharp point brings down the electricity from a charged cloud, silently and gradually, in the same way that the point of a penknife held in the hand towards a heavily charged conductor of an electric machine, will discharge the whole insensibly and without any explosion. In such a case as this, a small rod will be sufficient. But when an explosion (from a suddenly and very heavily charged cloud) takes place, from the insufficiency of the rod to draw it off as stated, and the rod becomes an accidental channel through which the explosion passes, a small rod may be melted, or if not melted, it may not carry down all the electric fluid. For being intensely filled with it at this moment, the fluid tends to escape in all directions from the rod, and seeks other channels, thus causing great danger to the building or other objects near at hand. Hence, the larger the rod, the safer it will be, and the less will be the danger of the fluid being diverted from it. Three fourths of an inch in diameter is a good size.

A serrated edge (except near the point) by presenting a point at each serrature, only increases the tendency of the fluid to escape from the rod—consequently we could not recommend the copper strap described by our correspondent. It would no doubt, however, form a good underground-termination, and assist in the dissipation of the electricity.

As the electric fluid exists only at the surface of conducting bodies, an extension of surface without lessening the quantity of metal used, would doubtless increase the efficiency of rods. Hence, a flat bar would probably be better than a round rod of equal weight. A smooth copper strap might prove valuable—copper is a better conductor than iron, but whether as much better as its increased price, is quite doubtful. We shall resume this subject in another number.

More Good Hogs.—A correspondent writes that Mr. ELIZUR DOWD, of Norfolk, Ct., recently butchered two pigs, a few days over nine months old, which weighed 686 lbs.—one weighed 360 lbs.

Economical Culture of Potatoes.

MESSRS. EDITORS—I have been a reader of the Country Gentleman and the Cultivator since the publication of the first number, and consider myself, much benefited by them. As I have been profited, I am willing to contribute my mite for the benefit of others. In the Country Gentleman of the 11th inst. C. BLAKE-LV inquires the process of raising potatoes, from those extensively engaged in the business. I am not one of them, but I raise a few acres of potatoes every year, and I will tell you *how I do it*. Take land that has been tilled the year before; it should not be *very stony*; manure or not in the spring, as you please. Plow the ground thoroughly, and harrow smooth. I then commence on one side of the lot, and make four straight marks across the lot with a plow, about 32 inches apart keeping the plow as near the top of the ground as possible on wettish land, and not more than 3 or 4 inches deep on dry land. I then set two men or boys dropping the potatoes in these marks, about 10 to 12 inches apart. I cover the potatoes with the plow going one way, and make a mark coming back, continuing to do so until I get across the field. I make three rows across the ends or headlands, finishing them in the same way. I let them remain until *nearly* time for them to come up, but *before* they come out of the ground, take a brush harrow, (I usually use a tree top) and harrow the ground over lengthwise of the rows; this checks the weeds, which will start before the potatoes, unless the land be *very clean*. When the potatoes got to be some 6 or 8 inches high, I go through them with one horse and plow twice in a row turning a furrow each way, and they are done, until digging time. If the season should be wet, and weeds grow too fast for the potatoes, I might go through them again: with the plow, but have never done so.

I also dig them with a plow, taking each alternate row, and picking them up as fast as dug; and it will pay when the price of potatoes are as high as they are now, to take potato hooks and hoe over the ground; but when they were not worth more than 12½ or 18½ cents per bushel I used to pick up what we could find, and harrow over the ground, then pick up again, and leave the rest for the store pigs. I have in this way raised 315 bushels on one acre, *but not last year*. I have been inquired of in my way of digging, if I get them all? My answer is, I get enough. I do not think I can raise more bushels per acre this way, than by hand, but can do it for less expense per bushel. It is the hand labor that costs the money. The rows should be made north and south, where the land will admit of it. E. B.

P. S. By the way I have not told you all I know about potatoes:

SURE CURE FOR THE POTATOE ROT.—Some few years since my neighbors were complaining that theirs were rotting badly. I looked at mine, thought they were good, and had them put in my cellar. They had not been there many days, when the strong smell from the cellar, induced me to examine them, I found they

were rotting. I had them taken out and laid on the ground. The night after was severe *cold*, and they froze up *solid*. That stopped the rot *entirely*. I then covered them carefully to keep them from thawing. I boiled them during the winter as occasion required. My hogs and cattle did well on them, I think I may say without fear of contradiction, that *boiling or freezing potatoes will stop the rot*. E. B. Plattsburgh, N. Y.

Saw-Dust for Stables.

By placing a scaffold under the saws of saw-mills, large quantities of saw-dust may be procured, and opportunities often occur of obtaining it from other wood-sawing machines. In some respects it constitutes an admirable material for littering stables, and it is the more valuable this winter on account of the scarcity of straw or its value for food. It possesses one great advantage over straw-litter, in the character of the manure it forms, being entirely free from the coarse and fibrous texture which renders "long manure" so difficult to spread well, or intermix thoroughly with the soil. Manure mixed with saw-dust-litter only, possesses all the strength and power of fresh manure, with none of its peculiar disadvantages. When made from most kinds of wood, saw-dust, from its pulverization, will decay in a single season; the more durable kinds of wood will remain much longer, and these are therefore admirably adapted for loosening heavy soils, by keeping them more open, and rendering them more absorbent—possessing this advantage over an intermixture of sand, that it carries the absorbed fertility into the earth with it, which sand cannot do, although the latter forms a more durable constituent of porosity.

We observe that Dr. DADD, in a recent tour in the western states, notices the use of saw-dust for the purpose of littering horse stables in some of the western cities, where, independently of its economy, it is regarded as far superior to any other material. The large quantities of liquid manure which it absorbs, renders it a drier bedding, at the same time less of the peculiar gas of badly littered stables escapes from it into the air. Dr. DADD however, makes one objection,—the injury it may do to horse's feet, by rendering them dry and brittle, on account of its absorbent properties. We can see no force in this objection. Saw-dust absorbs more water than an equal bulk of straw, not on account of any chemical or inherent property it possesses of abstracting water, like quicklime for instance; but solely from its greater *mechanical* porosity. Its absorbent powers are precisely like those of a sponge. When the liquid is already free and separate, either saw-dust or a sponge will suck it in in a moment; but they cannot withdraw it from the still finer pores of a horse's foot. A dry sponge placed in contact with the hand will not produce that dry and parched feeling caused by the presence of powdered quicklime, for the coarse capillary pores of the sponge cannot abstract moisture from the fine capillary pores of the hand. Hence a sponge cannot render the skin of the hand

drier, nor a bed of saw-dust render the hoof of a horse drier, although both may remove from the surface any moisture from perspiration or other cause, which has been *already* deposited there.

Scioto Valley and New England Soils.

In the *COUNTRY GENTLEMAN* of Jan. 4, we had a short and hastily written article on the "Pulverization of the Soil," the object of which was to show the importance of thorough tillage as a means of rendering available the food of plants lying dormant in the soil. As illustrating the advantages of a judicious pulverization of the soil, we mentioned that "Dr. WELLS of Cambridge, found that the soils of the Scioto valley in Ohio, which have long been noted for their extraordinary fertility, contained a no larger proportion of the elements of plants than the comparatively sterile soils of New England. So far as chemical composition was concerned, one soil was just as good as the other, the only difference being that the rich Scioto valley soil was composed of *finer particles* than that of Massachusetts."

The *Ohio Cultivator* has a leading article in reference to this "singular paragraph" which it says is "contrary to truth and reason," and "different from the statement of Prof. WELLS." It attempts to prove the statement "contrary to truth" as follows:

Prof. WELLS did not say that the Scioto valley soils contained no larger proportion of the elements of plants than the soils of New England, nor that the only difference between them was the finer particles of the former; but simply that the inorganic (or mineral) constituents of the two were nearly alike, and hence the difference in fertility was to be attributed to the *amount and condition of the organic matter*, (the vegetable mould—carbon, nitrogen, ammonia, &c.,) in Scioto soils, and the fineness of their particles."

This appears to us rather a curious method of reasoning. We stated that Dr. WELLS' analyses showed the soil of the Scioto valley to contain no larger a proportion of the food of plants than the soil of New England. The *Cultivator* says this is "contrary to truth." Why? Because "Prof. WELLS did not say" so and so.

The analyses to which we referred were of a soil from Palmer, Mass., and one from Ree Ree Bottom, in the Scioto Valley, which "has been cultivated fifty-one years; forty-five crops of corn and two or three of wheat have been taken from it; it has also been a few years in grass or clover. It has scarcely diminished in fertility, and now, with the most ordinary culture, yields on an average one year with another, eighty bushels of corn to the acre."

This astonishingly fertile soil, Prof. WELLS found to contain in 10,000 lbs:

Insoluble silicates, clay, &c.,	\$300 lbs.
Lime,	40 "
Phosphoric acid,	4 "
Alkalies,	16 "
Organic matter,	600 "

The Massachusetts soil contained in 10,000 lbs:

Insoluble silicates,	8500 lbs.
Lime,	200 "
Phosphates, (phosphoric acid and alkalies,	60 "
Organic matter,	800 "

It will be seen that the Massachusetts soil contains

one third *more* organic matter, five times as much lime, and three times as much phosphoric acid and alkalies, as the rich Scioto valley soil. If we stated anything "contrary to truth" it was in saying that "so far as chemical composition was concerned one soil was *just as good* as the other, for in fact, according to the analyses, the New England soil is *much better* than the rich soil of the Scioto valley.

We asserted that Prof. WELLS' results show that the difference between the rich Scioto soil and the comparatively sterile soil of New England, is not in chemical composition, but in the size of the particles of the soil. We have shown that, in one instance at least, the Massachusetts soil, "so far as chemical composition is concerned," is *richer* than the *richest* of the Scioto soils. Let us now look at the question of the size of the particles. Prof. WELLS says, "This element of the different soils (organic matter) will generally be found to be greater in the rich Ohio soils than the soils of New England. Compared with the alluvial lands along the rivers of New England, the excess is not very considerable. But there is a very great difference in the state and condition in which this organic matter exists in the soils of the Scioto, and the soils along the Connecticut. In the former, it is so finely divided, so blended and incorporated with the mineral particles, that few, on examining the dry, pulverulent soil, would be able to form a fair comparative opinion respecting the quantity present. * * On the contrary, much of the organic matter in the soils of New England is coarse, recently derived from decayed animal or vegetable organisms, and perhaps not yet thoroughly decomposed." * * * "There is one other point in which the Ohio soils examined by me differ from New England soils, and that is, in the *fineness of their constituent particles*, most of them being but little else when dry, than impalpable powders."

Our readers can now judge for themselves, how far that "singular paragraph" was "contrary to truth and reason."

Peruvian Guano for Wheat.

In 1853, JAMES CAIRD of Beldoon, Scotland, dressed in the fall, a hundred-acre field of wheat with two cwt. of Peruvian guano per acre, leaving an acre, in the center of the field, without guano. The result was: The acre without guano gave 35 bushels of wheat, and 30 cwt. of straw, and with the guano, 44 bushels and 40 cwt. of straw. Last year he repeated the experiment. A fifty acre field of wheat was dressed in the fall, at the time the seed was sown, with two cwt. of Peruvian guano per acre, leaving an acre undressed in the center of the field. The acre without guano was a week later in ripening than the other, and the yield was: Without guano, 25½ bushels, weighing 60 lbs. per bushel; with guano, 32 bushels, weighing 63 lbs. per bushel. That is to say in 1853, 224 lbs. guano gave an increase of 9 bushels; and in 1854, an increase of 6½ bushels, or taking the difference of weight per bushel into account, an increase of 8 bushels per acre.

From this our readers can judge for themselves,

whether guano at $2\frac{1}{2}$ cents per lb. will be a profitable application to their wheat fields. We may remark that Mr. CAIRD is an ardent advocate of the use of guano, and would be inclined to make out as good a case as possible. In the west of England, it is the opinion of farmers of much experience in the use of guano, that 100 lbs. of good Peruvian guano will not increase the wheat crop more than three bushels per acre. The general opinion in Maryland and Virginia, where guano is extensively used on impoverished soils, appears to be that 100 lbs. of good Peruvian guano will increase the wheat crop 4 bushels per acre. This estimate is even more favorable than the results of Mr. CAIRD.

There is one thing in Mr. CAIRD's experiment which somewhat surprises us. *The guanoed portion ripened a week earlier than the unmanured acre.* Should this prove to be usually the case, guano might become additionally valuable, in pushing the wheat out of the reach of the weevil. Have any of our readers observed this effect of guano? Does rich land produce earlier wheat than poor land?

Mr. CAIRD, last year, also tried a mixture of nitrate of soda and common salt, as a top dressing in the spring, for wheat. One cwt. of the nitrate and one cwt. of the salt, were sown in April on an acre of wheat, and the result was: One acre without manure gave 30 bushels, and the acre dressed with the nitrate and salt gave 42 bushels. The 112 lbs. of nitrate of soda, cost \$4.50, and the salt 50 cents; so that an increase of 12 bushels of wheat was obtained for \$5 expended in manure.

Culture of the Onion.

MESSRS. EDITORS—In your last number I observe some inquiries in regard to growing Onions on Muck soils, their preparation, &c. Perhaps I can give the information, having raised them on such ground for several years with good success. The ground should be turned over in the fall, for two reasons—first, the frost pulverizes all lumps; and secondly, it becomes dry and fit to work sooner in the spring, thus enabling the seed to be got in early, which is very essential for a good crop. I draw on, before sowing the seed, about forty loads of well rotted barn-yard manure, and harrow it in thoroughly; mark out the ground in drills fourteen inches apart, and sow at the rate of six to eight lbs. of seed to the acre, covering the soil with the back of the marker, and finishing up with the hand roller. After the plants are up two or three inches, if the weeds begin to start, I pass the hoe between the rows as near the plants as possible, and take out what weeds are left by hand. I continue the same process as long as necessary to have them clean. Clean culture is more necessary in raising onions than almost any other crop; as they require no system of rotation, and the expense of cultivation depends on the weeds, nothing more being required, in my opinion, but to keep them clean. I never stir the ground any deeper than is just sufficient to kill the weeds, and I have raised nearly nine bushels to the square rod, or fourteen

hundred to the acre. I always apply one or two top-dressings of wood-ashes, sown broadcast in June, at the rate of thirty bushels per acre, with marked effect. I do not know the composition of the onion, (will some one give it?) but think it contains a large percentage of nitrogen and potash.

Your correspondent wishes to know which is the best kind. I have raised several kinds, but prefer the Wethersfield Large Red, as being more prolific than any other, good to keep, and brings a fair price in market. I would advise your correspondent not to buy his seed of irresponsible dealers, who do not care whether their seeds are good or not, but get it of established seedsmen, and I will warrant that next fall he will have no cause to regret having paid a trifle more for it. I have always got my supply at J. M. THORNBURN's, John-St., New-York, and I believe every seed comes up, while some of my neighbors have been bit by street peddlers. J. H. VAIL. Chester, N. Y.

[The onion, in addition to the peculiar flavor for which it is usually esteemed, is remarkably nutritious. According to JOHNSTON's analyses, the dried onion root contains from twenty-five to thirty-five per cent. of gluten. This makes it far more nutritious than turnips, carrots, beets or potatoes. Eos.]

Value of Corn Cobs.

Shell all your corn before you sell it, and *crush the cobs for cattle feed*; when crushed, cooked, and mixed with cut hay or straw, 4 bushels are worth as much as 2 bushels of grain, and make most excellent messes for milch cows, or working oxen.—*Exchange Paper.*

In the Eastern states, where corn and all kinds of cattle food command high prices, there can be little doubt that it pays to grind the cob with the corn without shelling. In the large Rochester mills, the charge for grinding a bushel of shelled corn is five cents; for grinding two bushels of corn in the ear, (equal to a bushel of shelled corn) eight cents. Estimating that the two bushels of ears weigh 80 lbs., and the bushel of shelled corn obtained from them to weigh 60 lbs., we pay three cents for grinding 20 lbs. of cobs, or \$3 per ton. It must be remembered, too, that we save the expense, and the loss of corn, of shelling. Corn-cobs are not very nutritious—equal to the best wheat straw—but in this neighborhood, at least, when ground, they are well worth \$3 per ton. There is, however, no such advantage in grinding cobs as the writer we have quoted would lead us to believe. He says, four bushels of ground cobs are worth as much as two bushels of grain. This is a great mistake. Four bushels of cobs, at most, would not weigh more than 80 lbs., while the two bushels of corn would weigh 120 lbs., and no one can for a moment suppose a pound of cobs, cooked or ground, or messed up how you will, can possibly afford as much nutriment as a pound of corn.

The practice of grinding corn in the ear, where cattle food is high and scarce, is a profitable one, and there is no necessity for making such extravagant statements in regard to it. If those who write for the agricultural press would keep within bounds, there would be far less prejudice against book farming.

Sanding Paint—Coarse Paint.

MESSRS. EDITORS—I would like to obtain a recipe for a sand coating for a board house. I have tried for years to get hold of some plan to fix sand or gravel upon a wood wall, to be used with some kind of sizing impervious to weather. I find on page 28 of your Register for 1854—paragraph 1st—a reference to its use on cheap farm houses, “with vertical boarding, and is intended to be painted and *sanded* on the rough surface.” Will you be so good as to inform me as to the modus operandi? I would cheerfully pay whatever you wish for the information. T. BOYER. *Gallatin, Tenn.*

The simplest way of *sanding*, is to dust it over the second coat of paint, a sufficient quantity of which will adhere to the fresh paint to form a uniform surface. A thin third coat is sometimes applied over this to cause more firm adhesion, but is not necessary on the rough cottage siding.

A cheap outside application is made of the best and purest lime wash, of the consistence of thick white-wash, to which, after the lime is thoroughly dissolved and intermixed, one twentieth of the weight of lime is added in *white vitriol* (sulphate of zinc,) which will cause the whole to adhere, and become more durable than lime alone. Its brilliant whiteness may be softened to a cream color, by adding a fifteenth of the lime in yellow ochre; or to a fawn color by the same quantity of a mixture of 8 parts of umber, 2 of Indian red, and 1 of lampblack.

GERVASE WHEELER recommends the following:—Dissolve seed-lac 1 lb. in 1 quart of alcohol, add this to a gallon of turpentine, cold linseed oil 3 pints, boiled oil 3 pints, beeswax 4 lbs, ox-gall 10 ounces; mix these all together, and then add 1 gallon of tar. Lay it on with a large flat brush. It appears to us to be needlessly complex in its composition, but is highly recommended.

The following is recommended by DOWNING, as being not only much cheaper than common paint, but *far more durable*, increasing in hardness by time:—1 part each of powdered quick-lime and white sand (or coal ashes), and 2 parts of fresh wood ashes, all sifted, and mixed thoroughly while dry, and then rendered liquid like paint by enough linseed oil for this purpose. Its light grey stone color may be modified variously by ochre, Indian red, umber, lampblack, or Spanish brown. The first coat should be thin, the second thick. It is equally suited for wood, brick or stone.

How to Kill Liveforever.

I think this troublesome weed can be destroyed by sowing salt upon it broadcast, at the rate of fifteen bushels per acre; and I will give my reasons for thinking so. When I first settled on the farm on which I now reside, (which was twelve years ago,) I discovered several bunches of liveforever. Having heard that it was the worst weed to kill that grows in this part of the country, I thought I would try an experiment upon it; which I did in the following manner: I salted my sheep and cattle on it whenever they ran in the field where it was. I followed this practice two years, and have seen none of the weed on the farm since. ERIN CROSS *Potter H.H. N.Y.*

National Poultry Show.

We learn from a friend who attended the “National” Poultry Show, held last week, in BARNUM’s Museum, New-York, that although the attendance was not large, and many of the most celebrated breeders of Dorkings and other good old favorite varieties were absent, yet on the whole, the exhibition was eminently successful, and probably the largest ever held in this country. The Asiatic varieties were out in full force, though it is most evident the passion for big chickens is much abated. There is a manifest improvement in the form of these varieties. Shanghais, of good size, were shown, with short legs, full breasts, round, symmetrical bodies, well covered with fine, compact, glossy feathers, and fine clean heads. At least they approximated much more closely than hitherto to this description.

The show of Game Fowls, of the several varieties, was quite large and good; and the Bantams made up in number and quality what they lacked in size. The Golden Hamburgs, Bolton Greys, Black Spanish, Polands, &c., were well represented in number and quality. The show of Dorkings was meagre. Our friend, who has travelled much in this country and in Europe, thinks the show of Turkeys beats anything he ever saw before. Peacocks and Guinea hens, Bremen, African, and Chinese Geese; ducks of all kinds, grouse, rabbits, &c. &c., were all there in rich abundance. We regret that we were unable to attend.

Profits of Poultry.

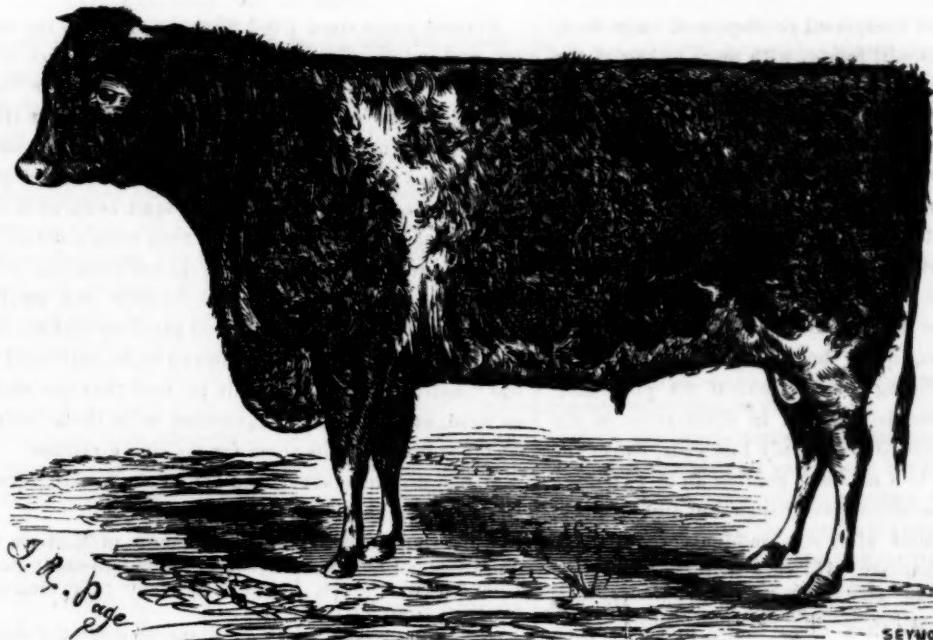
Mr. DAVID DEPEW, of Washtenaw Co., is reported in *The Michigan Farmer*, to have kept during the past season one hundred and sixty-five hens, from which he has had twelve hundred and seventy dozen eggs, which have averaged ten and a fourth cents per dozen, making the yield of each hen, in eggs alone, seventy-eight cents. The average number of eggs for each hen is ninety-two. The feed of the hens consisted of a change, or a mixture of oats, corn, barley and milk-feed.

In estimating the profits of poultry, the guano which may be obtained from the droppings of the roost, should always be taken into account. If something be added to the above on this account, and from thirty to forty cents deducted for the feed of each hen, there will remain a profit of more than 100 per cent. on value invested. What rural business is more profitable?

To Destroy Grasshoppers.

MESSRS. EDITORS—Your correspondent who inquires for a mode to prevent grasshoppers from destroying the foliage of his young fruit trees, vines, &c., may find an easy, safe and sure, and at the same time profitable one, if he will just put two or three old hen turkeys with their broods of young in the infested enclosure. The young turkeys are very fond of grasshoppers, and soon become dexterous in capturing them, upon which they grow and fatten rapidly.

I have known an old hen with thirteen young ones the past season when grasshoppers were unusually numerous, that kept a five acre lot well cleared of them. Respectfully, A. C. J. *Richfield Spa, Nov. 27, 1854.*



SEYMOUR-AUBURN-N.Y.

Short-Horn Bull Calf Schenandoah.

The above beautiful Short horn bull calf, bred by, and the property of Col. J. M. SHERWOOD, of Auburn, N.Y., was calved 27th Dec., 1853. Color, roan. Got by 3d Duke of Cambridge, 5941. Dam Red Rose 4th, by Earl of Chatham, 10,176. —— Red Rose 2d, by Napier, 6238. —— Tube Rose, by South Durham, 5281. —— Rose Ann, by Belerophon, 3119. —— Rosette, by Belvidere, 1706. —— Red Rose, by Waterloo, 2816. —— Moss Rose, by Barron, 58 —— Angelina, by Phenomenon, 491. —— Anna Boleyn, by Favorite, 252. —— Princess, by Favorite, 252. —— (Bred by R. Collins,) by Favorite, 252. —— Hubbuck, 319. —— Snoden's Bull, 612. —— Masterman's Bull, 422. —— Harrison's Bull, 669. —— bought of Mr. Pickering, of Sedgefield Hall, by Mr. Hall.

Diseases of Animals often Caused by Mismanagement.

One can hardly spend a few hours on a well traveled road, or in a village thronged with teams, without witnessing such treatment or rather mis-treatment of animals as must result in producing great discomfort and suffering, if not actual disease. For want of judgment or want of consideration and proper feelings, there is everywhere to be seen quite a painful amount of negligent, improper and cruel treatment of domestic animals. Perhaps veterinary practitioners more frequently see cases of disease from such treatment than from all other causes combined. A great many of the cases of disease to which they are called, have their origin in some kind of mismanagement, and might be avoided by the use of a little more judgment, or a little more kind consideration in feeding, housing, &c.

We have been reminded of many cases of cruelty and mismanagement, by reading a paper by a veterinary surgeon in the Transactions of the Highland and Ag. Society. It is there stated that animals get diseased with treatment usually considered good, as well as from that which all would pronounce cruel or bad. The system of fattening cattle, though it accomplishes seemingly well the object in view, is yet decidedly unfriendly to good health or soundness of constitution. Scarcely a single high-fed ox can be found which is perfectly free from disease of the liver, or other internal organs. A perverted taste in those given to epicu-

rean indulgences in this way, brings upon its votary its own punishment; for while to gratify his artificial taste, he calls for a treatment of animals which makes them diseased, he must more or less suffer in health for eating the flesh of an unsound and unhealthy creature.

But it is to diseases from a different source that we would call the attention of those who would not knowingly or willingly treat any of their animals ill or improperly. The horse is usually the greatest sufferer from mismanagement. *Irregularity* in feeding is one of the most common causes of injury to the health and long life of a horse. If horses were fed as regularly as their masters, there would be fewer cases of suffering, disease and death. But nothing short of much suffering or actual disease can come of driving a horse a long journey, and then letting him eat at his will of hay or grass as the season may be. We have known one valuable horse killed in this way, on account of the penuriousness of its driver, who drove it a long journey without resting or baiting. Its supper overloaded its stomach, and tasked beyond their ability its digestive powers in the jaded and exhausted condition in which the day's hard work had left it, and an attack of colic and acute indigestion, resulting in death, was the consequence. There is more danger of such diseases from green succulent food than from dry. There is always danger in allowing a hungry or over-worked horse to partake freely of grass, clover or roots. If the diges-

tive powers are not competent to dispose of such food, a fit of indigestion will follow, with more or less of the following symptoms in a greater or milder degree: Turning round the nose to the sides, heaving at the flanks; lying down and immediately getting up again, or attempting to roll when down; distention or bloating; a look of agony; debility or staggers.

A horse with its stomach full of green food should not be driven fast or put to hard work, else similar symptoms to those just mentioned will be apt to supervene. A horse so fed and driven is liable to be taken with great distress, quick breathing, and distention of the abdomen, inclining it to lie down if not prevented. The following case is reported in illustration in the Transactions referred to. In July last year, one of the horses belonging to a medical gentleman of extensive practice was supped on green food about eight o'clock, and in about an hour after was suddenly required to perform a rapid journey. He very soon showed symptoms of distress, but was obliged to proceed. He was driven home in less than three hours, and was then suffering from paroxysms of agonizing pain, with profuse perspiration and a depressed pulse. A solution of some opium in four ounces of sweet spirits of nitre, with some decoction of aloes was given him. This gave temporary relief; but soon the symptoms returned with increased violence. A drench of the same nature and strength was given and blood abstracted. This was followed by relief, but had to be repeated in a few hours. After the third dose the horse got well, but was very weak for about a week. There have been cases so severe, of this kind, as to cause rupture of the stomach, the contents being found scattered all over the bowels. We may return to this subject.

The Best Breed of Cows.

MESSRS. EDITORS—In the January number of the Journal of the N. Y. State Ag. Society, I notice a communication from J. WELLS of Norwich, Chenango County, in which he says—"I doubt very much whether there has ever been any better breed of cattle either for beef or milking than the native red cattle. *It is keeping that makes the cattle.*"

The surprise which the above extract is calculated to produce is very much mitigated by the sentence which follows it: "There is not much attention paid to scientific farming."

Where attention has been given to scientific farming it has long since been ascertained that there is a vast difference in breeds of cattle. If this were not so, why do we see so great a difference in different animals under the same treatment? I have now three steers one year old last spring. One is one half, one is five eights, and the other is three fourths Short Horn. They have been kept together and have fared precisely alike, and all are good animals though neither is *red*. In size, condition, and quality, they grade as in Short Horn blood, and good judges think the best one will now dress 800 lbs. Their feed now is cornstalks, straw, and three quarts each of corn meal daily. Until middle of Nov. they had grass only.

Several years since I fed 30 steers through the winter, and in the spring sold them for the New-York market. About three fourths of them were choice "native red cattle" and one fourth were grade Short Horn but of coarse quality. The 30 steers were fed the same quantity of meal each, and in other respects fared precisely alike, yet the gain was at least as *three to two* in favor of Short Horns, though they were not *red*.

Some families of Short Horns do not excel as milkers, and this also is true of the "native red cattle." Other families of Short Horns do excel as milkers, and as a whole breed they are believed to be unrivaled by the "native red cattle," while for beef they are second to none, and those best acquainted with them believe no other breed equals them for milking qualities.

A few instances are here given of the milking qualities of thorough bred Short Horns:

Ruby, now owned by S. P. Chapman, of Madison Co. on grass feed only gave 1009½ lbs milk in twenty days, from which 40½ lbs. butter was made. Transactions for 1850 page 36.

Appollonia averaged 24 to 30 quarts daily for weeks in succession on grass, and did not dry until calving unless forced.—A. H. B. page 145.

Blanche on grass gave 12 qts. milk, 3 times each day. For 6 successive weeks, averaged 14½ lbs butter.—A. H. B. page 149.

Lady Althorp gave 30 quarts daily for months in succession, 5 quarts of which yielded 8½ oz.—A. H. B. page 163.

Lucilla gave 337 lbs milk in one week on grass only, which yielded 15 lbs. 3 oz. butter.—A. H. B. page 198.

Miss Lawrence gave 34 qts. rich milk daily on grass.—A. H. B. page 205.

Splendor averaged 28 qts for 3 months on grass only.—A. H. B. page 229.

Susan gave 32 to 36 quarts daily on grass only. A. H. B., page 232.

Young Willey yielded 12 lbs. butter weekly on grass. A. H. B., Page 238.

These examples might be multiplied to an almost indefinite extent, but I forbear for this article is now much longer than I intended to make it. E. MARKS. Fairmount, Jan. 15, 1855.

Produce of Seed altered by Age.

The practice of sowing old seeds of cucumber and melon in preference to new, (see Co. Gent. vol. 4, p. 379) is a very general one among the gardeners of England. There is certainly a very marked difference in the growth from new and old seed—the former producing strong vigorous growth, consequently late in fruiting, while the old seed is proverbial among the "clan," for early and free productiveness. It is not at all uncommon for a gardener to have seeds of his own saving from some favorite sort, from six to eight years. Where so much winter forcing of these two plants is carried on, and often by the fermentation of manure alone, it is of the utmost importance to have sorts or seed highly productive.

Balsam and cockscomb too, are undoubtedly better, that is, the balsams more double, and the comb finer from old than new seed. The almost spontaneous production in this country, of the things mentioned here, is probably the cause why they receive so little attention, while in England the whole of them require a great deal of care to bring to perfection. E. S.

Pruning the Grape.

A correspondent at Southeast, N. Y., requests a chapter on the pruning of the grape. He adds, "I do not trim on the renewal system, and I find that this year's shoots that are to be next year's bearers, if kept without any trimming, fling out such a profusion of side-shoots that they become altogether too thick; and by trimming them off, the bud which should be left to grow next spring, will grow this summer and produce a crop of grapes. I had grapes on such vines this year that were about full grown when frost came. I cannot keep the vines thin enough without taking off the side-shoots. I also wish to ask whether, in grafting the vine, if we have little vines up, shall we graft them, and then set them out as we do root-grafted apple trees, or must they be cut off below the surface and be grafted when they are growing?"

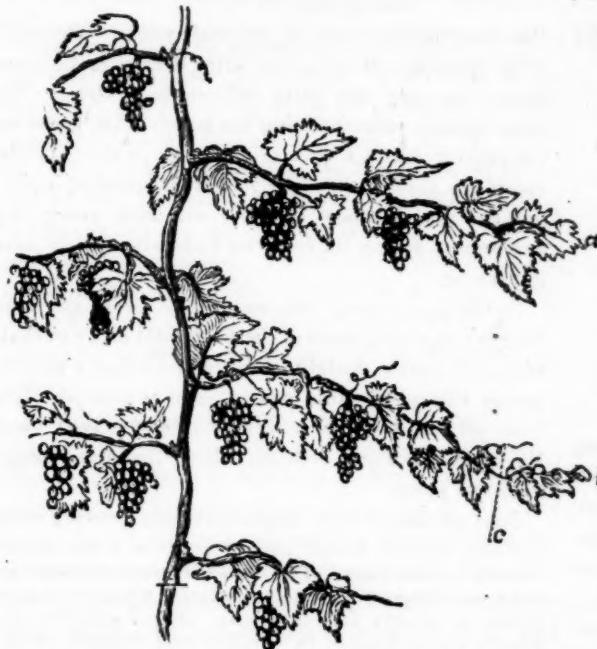


Fig. 1—Portion of a grape vine in bearing, representing the bearing branches, from the sides of a last year's vine.

In compliance with the request of our correspondent, and in reply to frequent inquiries, we furnish a few hints on pruning the grape, which we shall endeavor to make sufficiently plain by reference to figures, that inexperienced cultivators may easily understand them. A well-pruned vine will not only produce *earlier* fruit, but it will be larger, and incomparably superior than on one left to straggle without care.

There are two leading principles that should be always observed in pruning the grape, whatever may be the particular mode adopted. The first is, that the vine *always bears its fruit on the present year's shoots*, which have sprung from buds on the previous year's growth, (Fig. 1.) Secondly, that the full growth and perfect ripening of the *fruit* depends wholly on healthy, well developed *leaves*, which supply food to the forming berries, and hence the growth must not be allowed to become so thick that the leaves cannot properly develop themselves, nor should the vines be trimmed so closely that there shall not be leaves enough

for the perfection of the fruit. These two facts must be always borne in mind by those who would raise the best grapes. These being understood, we now proceed to the details of pruning.

FIRST YEAR. When a vine is first procured from the nursery in spring, it is usually furnished with several irregular shoots of the previous summer's growth, resembling Fig. 2. These should be all closely pruned



Fig. 2—Vine as obtained from Fig. 3.—The same, pruned when set out.

to the older wood, leaving only the strongest, and this should be cut back so as to leave but two or three buds, Fig. 3. These buds will grow, and when only a few inches in length, the strongest shoot must be selected, and the others rubbed off. This single shoot is allowed to grow till about the first of autumn. After this period, the new leaves and wood that are formed, cannot mature perfectly, and their growth will be in some degree at the expense of the matter forming in the previous portion of the shoot. Its growth should be therefore stopped by pinching off the end. This will assist in maturing and strengthening the vine. Any *side-shoots* that appear during the summer, or any smaller shoots that happen to spring up from the stump, should be kept rubbed off as fast as they appear, as they withdraw and divide the nourishment received from the roots.

SECOND YEAR. The single strong shoot made the first year, (fig. 4.) should be cut down to three or four buds, only *two* shoots from which should be allowed to grow, the others being rubbed off, and the lateral shoots, should any appear, being removed as already described. The autumnal shortening of the two shoots as above stated is also necessary. The judgment of the cultivator will teach him,

that if the transplanted vine is small or weak the first year, and makes but a few feet growth, the same first year's process must be gone over again the second

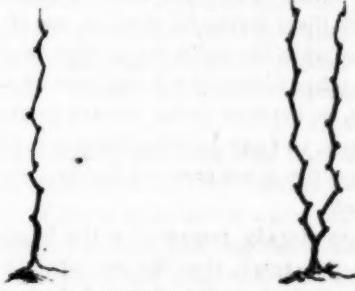


Fig. 4—Growth at end of first summer from setting out. Fig. 5—Growth at end of second summer from setting out.

a vigorous growth at the same time.

THIRD YEAR. The two shoots made during the second year, (fig. 5) are now extended each way horizontally, and fastened to the newly erected trellis. This may be done at the end of the second year, or early in the spring of the third. These horizontal branches, termed *arms*, are to be cut back at the same time, so as to leave two good buds on each, so that four shoots, two on each side, may spring up from them; the same care as formerly being observed to remove suckers or supernumerary shoots and side branches, and to give the autumn shortening. None of the fruit bunches should be allowed to remain. The four shoots as they advance in growth, should be tied to the trellis, in the position that the figure represents

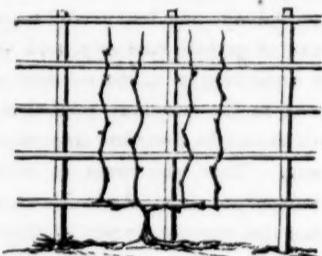


Fig. 6—Growth at end of third summer from setting out.

FOURTH YEAR. Two shoots or canes are suffered to remain in their position upon the trellis, merely cutting them down to three or four feet. They will throw out from each bud side-shoots, which are the fruit-bearers, and on each of these spurs one or two bunches of grapes may be allowed to remain and ripen; the ends of these spurs or side-shoots being pinched off, as shown at c, Fig. 1. All other bunches should be rubbed off as soon as they form. The other two or outer shoots, should, early in the same spring, (or late the previous autumn,) be laid down horizontally so as to form an extension or continuation of the *arms*; and at the same time be shortened to within about two feet of the ends of the previous arms. Two buds should be allowed to grow on each of these horizontal portions, one of which is to be trained up on the trellis for another bearing branch, and the other to serve for a continuation of the arms, as before, no bunches being allowed to grow on them. In this way, two new bearing shoots are added yearly, until the entire space intended for the vine on the trellis is filled.

We have already remarked at the beginning of the previous paragraph, that the two upright shoots are cut down to three or four feet. A bud should be allowed to grow at their upper ends, from which all bunches are to be removed, so that they may serve to extend their length upwards, till the full height of the trellis is attained.

There are two modes of treating vines trained in this way. One is what is termed *spur-pruning*, and

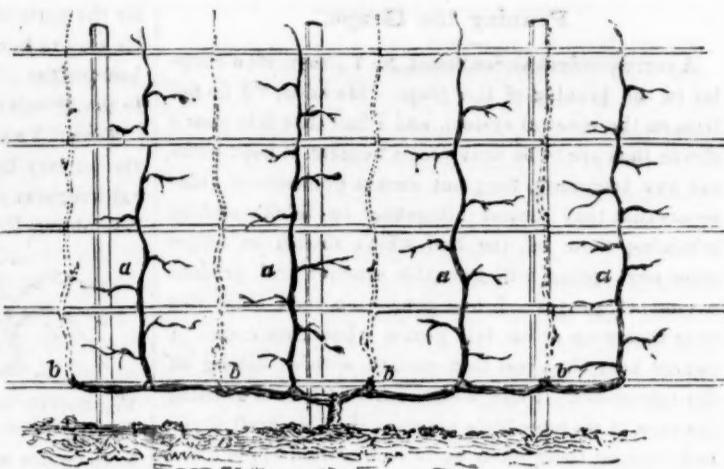


Fig. 7—A full grown grape vine, trained on the alternate or renewal system—the dark vines, the present year's bearers—the dotted ones, growing this year, for bearing next.

the other the *long-cane* or *renewal* system. Theoretically speaking, there is but little difference between them, but they are quite different in practice. We have already remarked that the bunches are borne on the present season's shoots. In *spur-pruning*, these shoots are thrown out yearly from the sides of a *permanent* upright shoot, and are cut back yearly, for new ones to spring out from the buds left at their base in pruning.

In the *long-cane* or *renewal* system, every alternate stem is cut wholly down to the horizontal arm; so that, while last year's upright shoot is furnishing a crop of grapes this year,—this year's shoot is growing (free from all bunches,) for a similar crop for next year. No shoot, therefore, remains above the arms longer than two years.

Spur-pruning is best adapted to slowly growing sorts, (chiefly exotics) which cannot produce a full-length branch in one year. The renewal system is best for the most vigorous American varieties, which will grow fifteen or twenty feet in a year. Fig. 7 exhibits distinctly a vine trained to a trellis, and treated on the renewal system, the dark shoots being the present season's bearers, and the dotted lines showing the growth of the canes for bearers next year, while new ones are growing in the places of this year's bearers.

Summer pruning, which consists in the removal of all supernumerary shoots and bunches as fast as they appear, and in pinching off the ends of bearing shoots, after enough leaves have formed, is of great consequence. Vines left to themselves, even after a thorough spring pruning, soon have such a profusion of leaves and branches, that none can perfectly develop themselves, and the fruit is consequently small, the bunches meagre, and the ripening late. The summer pinching of the ends of the bearing shoots, should be cautiously done, and not before the grapes are about half grown; four or five leaves at least should be left on every one, above the last bunch, and never more than two bunches be allowed on each bearing shoot.

The old vine should never be allowed to rise a foot from the ground—the lower it is kept, the easier the vine will be managed, and the freer it may be kept from suckers. Some of the best cultivators bury the old stump beneath the soil.

The preceding, will, we hope, fully answer all the inquiries of our correspondent, and prove useful to beginners generally. We are not aware of any experiments in root-grafting the grape out of ground—its success can be only proved by actual trial.

Bones as a Fertilizer.

Mr. C. D. HOPKINS of Salisbury Center, Herkimer Co., N. Y., writes us that, "from reflection and a hasty estimate, I doubt not that there is, in this single town of Salisbury, not less than 50,000 lbs. of bones left to waste and bleach in the open air every year. I made an *unsuccessful* attempt to dissolve some of these bones in sulphuric acid, according to the method described by Professor NORTON. I should be glad of any information as to how they may be decomposed, the best mill for grinding, &c." Several of our correspondents ask similar questions, especially in regard to the manufacture of home made superphosphate of lime. We will endeavor to answer these inquiries to the best of our ability; premising that the subject is one of great importance, on which science has thrown much light, but which is still surrounded with many practical difficulties.

The value of bones depends on the phosphate of lime and gelatine which they contain. If we burn bones the gelatine is driven off, while the phosphate of lime remains as ashes. Dry bones contain, in 100 lbs., about 50 lbs. of phosphate of lime, and gelatine equal to about 5 lbs. of ammonia. The commercial value of the former is about one cent per pound; of the latter, twelve cents per pound. This would make 100 lbs. of bones worth \$1.10;—the phosphate of lime being worth 50 cents, and the gelatine 60 cents. In burning, therefore, we destroy more than half the value of the bones.

The great question is, how can bones be applied so that the phosphate and the gelatine shall be both retained. Plow them in whole, is the first plan that suggests itself. This certainly retains in the soil all the virtue there is in the bones, but they are so slow to decompose and give up their fertilizing matter, that little or no immediate benefit is derived from their application. Place them in moist unleached wood ashes, or in horse dung or other fermenting material, and they will decompose and fall to pieces, is another recommendation. This plan has had many able advocates. It has doubtless in many cases proved effectual. There is, however, this objection to it, a considerable portion of the ammonia formed during the decomposition of the bones escapes; and if, in order to retain the ammonia, we surround the heap with loam, peat, &c., fermentation proceeds so tardily, from lack of air, that the object is but half accomplished. Better, however, treat bones in this way, than allow them to lie bleaching in the summer sun, an eyesore to every passer by.

Phosphate of lime as found in bones is insoluble in water, and, as plants can take up their food only in solution, it is very desirable that this insoluble phosphate should be converted into a soluble phosphate. This can be done simply by the addition of the proper quantity of sulphuric acid and water to the insoluble phosphate of the bones. The value of this change may be understood by the consideration of the fact that, while the insoluble phosphate sells in London for less than one

cent per lb. the soluble phosphate sells readily, as a manure for turnips, at eight cents per lb.

Knowing the increased value of the soluble phosphate, and the great difficulty of reducing bones to a powder, many scientific men have recommended farmers to dissolve whole bones in sulphuric acid, and thus "kill two birds with one stone." We have experimented not a little on this subject, and have come to the conclusion that it is *practically impossible* to make a good superphosphate of lime from whole bones. We have used twice the quantity of acid necessary for the conversion of the phosphate into superphosphate, and allowed it to act on the bones for several months, yet only a very small proportion of the bones was decomposed. Equally unsuccessful, too, have we been in dissolving coarsely crushed bones. The acid it is true decomposed the outside portions of the bone but left by far the greater part of the bones untouched. We have never yet succeeded in making a good superphosphate of lime without grinding the bones quite fine before mixing them with the acid.

We conclude, therefore, that while bones may be disintegrated by moist, unleached wood ashes, or by fermentation, the only method of obtaining *all* their fertilizing properties is by grinding. We should be sorry to discountenance experiments having for their object the decomposition of whole bones, but at the same time we could wish that some of the intelligence, ingenuity and skill, which have hitherto been unsuccessfully employed in this matter, were turned to devise a cheap and efficacious bone-mill, and that one was erected in every town of the country.

Having the bone dust, how should it be used? Should it be converted into superphosphate, or sown on the land as it is? We have thought much on this subject, and are inclined to think that, except in the neighborhood of large cities, where sulphuric acid can be obtained at a reasonable rate, say two cents per lb. it will generally be cheapest in the end to apply the bone dust without mixture with acid. For wheat, we are fully satisfied it will not pay to decompose the bones with acid, and on grass lands, from the experiments we have made on the subject, we conclude it is of doubtful economy. For turnips and other root crops, except potatoes, no manure has such a beneficial effect as good home-made superphosphate of lime drilled in with the seed. If sown broad cast its effects are not so marked.

With fine bone dust no farmer need have any trouble in making superphosphate. We have succeeded best as follows: Take a large tub or end of a cask, place in it the quantity of bone dust that can be best worked at a time, say 60 lbs., add water sufficient to wet all the bone dust, say 40 lbs., and be careful that all the dust is moistened. Then pour on sulphuric acid equal to full one third the weight of the bone dust, say 20 to 25 lbs. (sp. gr. 1.70.) The mass should be friskly stirred as soon as the acid is added. When it is well mixed, throw the semi-fluid mass in a heap on to a wooden

floor, and repeat the process till the whole is done. The larger the heap the better, as the heat generated during the process materially assists the acid in decomposing the bones.

A tolerably good superphosphate may also be made with less labor, by placing all the bone dust at once in a heap on a wooden floor, adding the proper quantity of water, and turning over the heap till all the dust is moistened, and then apply the sulphuric acid in small quantities, repeatedly shoveling over the heap, and adding the acid till the proper proportion is used. The longer the superphosphate is allowed to remain in the heap the better.

Superphosphate so made will be too moist for transportation, and cannot be sown to advantage without admixture with some absorbent substance. In England, burnt clay, refuse charcoal dust, coal ashes, dried peat, or even sawdust, is used for this purpose. Whatever is used, be very careful that it does not contain an alkali, or alkaline earth, as this would materially injure the mixture. Unleached wood ashes and lime, must on no account be employed for this purpose. They would neutralize the acid, and re-convert the soluble superphosphate into the insoluble phosphate, and thus undo what had been done at considerable expense. We hope yet to see the day when a good superphosphate of lime can be purchased in all our cities at a reasonable price, when a liquid manure drill shall be considered a necessary in every town, and when superphosphate shall be applied in a liquid state to several acres of root crops on every farm.

A Vermont Corn Crop.

The following statement, furnished to the Committee on Farm Crops, at the late winter meeting of the Vermont State Ag. Society, and on which the first prize for Indian corn was awarded to Mr. COLBURN, has been sent to us for publication :

GENTLEMEN—I present you the proof of the quantity of corn grown upon one acre the past season, *viz.* 113½ bushels, weighing 59½ lbs. per bushel, and cobs, 12½ lbs. I also present you a sample of the corn, a variety of the 8, 10 and 12 rowed mixed, a deep kernel and small cob, now designated as the *Skitchawang* corn.

The soil on which it grew is alluvial, near the Connecticut river; was broken up in 1852, and sowed with oats. In 1853, manured with hog-yard and compost, spread broadcast, 50 ox cart loads to the acre: plowed 10 inches deep, and planted with corn; the result, 105 bushels to the acre. This was a field of 7½ acres, for which I received your first premium last year.

Three acres of this field were last spring again manured with coarse barn-yard and stable manure, about 40 loads to the acre, spread as the year previous, and plowed 12 inches deep, thoroughly harrowed, planted 24th May, seed dry, hoed well three times, ashes and plaster after the first hoeing, a handful to each hill; plaster alone after the second hoeing, a table spoonful to each hill; rows 3½ feet, hills 2½ feet apart; harvested

early in October. The corn was all sound and well filled out, not injured in the least by the severe and protracted drought, which is attributed in part to the nature of the soil, but more to the deep plowing. That part of this 3 acre field which I present for a premium, is an acre on one side which received the stable manure, the yield on this acre being full one-fourth greater than on the other two acres which received the coarse manure from sheep yards.

Manure from stables is stronger, and acts quicker than sheep manure, but the latter seems to hold in the soil, and shows its effects in after crops, quite equal to cattle manure, and better than horse manure, though none is so good as a hog-yard compost. J. W. COLBURN. *Springfield, Jan. 10, 1855*

First Year's Experience in Farming—No. II.

RESTORATION OF OLD MEADOWS.—Finding that my meadows had been left without manure for many years, regularly mowed, and afterwards thrown open to the adjoining pasture lands, and that they had yielded but scanty crops of hay, I looked anxiously for some sure mode of restoring them to fertility. Not being able to collect the personal experience of farmers upon this subject, in any other way, the books which treated of the modes of restoring old meadows, were my resort. Here I found many useful suggestions. The best mode of treating them and the one which recommended itself as the most sure and permanently successful, was *plowing up, tilling, manuring and re-seeding*. But thirty acres of my farm were already under plow, and it would greatly add to the labor of conducting the farm and diminish my most needed hay crop, for a number of years, if this course were adopted. I could not do this.

If affairs had come to this condition under my own management, it would have resulted from a series of blunders I should prefer to remain unknown. For a good farmer will so conduct his business, as to be able whenever necessary, to plow up portions of his meadows and still retain the desired crops, without much change in character or quantity. But like many other troubles encountered during the year, I attribute these to my predecessors.

TOP-DRESSING.—Several writers I consulted, recommended top-dressing. It seemed to be a question not entirely settled, whether this dressing should be applied in the spring or fall. It was admitted that many instances of success in applying manure to meadows in the fall had been known, but it was strenuously urged that a very large percentage of the fertilizing qualities of the manure would escape in the atmosphere and be lost to the soil, if spread over the land in the fall, and left exposed to the winds and rains of winter. My judgment yielded assent to the arguments in favor of spring dressing, and I adopted it.

HOW APPLIED.—Having purchased of my nearest neighbor about 100 loads of well-rotted manure, which had accumulated by his cow stable during the two preceding years, (which he said he did not need, as his

farm was rich enough without it) and finding in the old barn-yard of my predecessors, another 100 loads, I had it piled up in several large heaps upon the meadows in the fall, and well covered over with sods and earth gathered from the old pastures. In the spring the whole was thickly spread over the meadows. The drag was then applied, and afterwards the whole was carefully bushed in.

THE RESULT.—Having done this work thoroughly, and been at considerable expense, I waited confidently for the crop. It was an *entire failure!* I do not think the crop was very much, if any, increased by the application. I did not get one ton of hay to the acre.

Instead of those prolonged spring rains, which according to the books, were to soak the fertilizing properties of the manure to the roots, came only small showers, followed by dry weather, which continued through the summer. The gasses evaporated, the manure dried up and wasted.

REASON FOR THE RESULT.—I attribute the failure of this experiment to the fact, that the manure was applied in the spring, instead of the fall. I am well satisfied, that if it had been scattered over the ground in the fall, and left to the influences of the *fall* rains and the dissolving snows of winter and spring, a much larger proportion of the virtue of the manure, would have found the roots of the grass, and enriched the soil. The first appearance of any benefit to the meadows, was after the removal of the hay crop, and the late rains came on.

THE SEASON.—It must be admitted, that the last was a very unfavorable year for trying such an experiment, on account of the prolonged dry weather of the summer. Some may have succeeded better than I did even last year, and it is quite probable that many of your readers have in former times, realized far better results from top-dressing in the spring. From my own experience, however, I must say, if manure is to be applied to the surface of meadows at all, *apply it in the fall.* *Civis. Utica, Jan. 16, 1855.*

Guano for Corn.

One of our neighbors let a piece of land to be planted upon shares with corn. He proposed to the laborer to try an experiment with guano on one portion of the field—should think about one-fourth—while the other portion received a good coating of yard manure. The field being well prepared, and marked out so as to show the place for each hill, about one table spoonful of guano was dropped in each place. It was then well mixed with the soil of the hill with the hoe. A little fresh dirt was then hauled over the compost thus made, and the corn dropped and covered. The result was such, that the owner offered to take the guanoed portion for his half of the crop. The laborer agreed to his proposition; and the owner actually got more corn from his part than the laborer did from the whole remaining portion of the field. This mode of applying guano is slow, but we think it amply compensates for the extra labor. *Wm. E. Cowles. Canton, Ct., Jan.*

Ipecac and Nitre for Croup.

In answer to the inquiry in our last, the non-resident editor of this paper states that he has used this remedy in his family with great success for the past thirteen years, and never in a single case out of many, has it failed in producing immediately the desired result. It has a great advantage over the old "hive syrup" in not producing a permanently injurious effect on the stomach. It is scarcely necessary to add that caution should be used afterwards to avoid catching cold, the pores being open from its effects.

About twenty grains of Ipecac are placed in a two ounce vial, with one ounce of sweet spirits of Nitre, and well shaken together. The vial is then filled with water, and it is ready for use, care being taken to shake it up well just before pouring out a dose. One fourth of a tea spoonful may be given to a child a year for two old, and twice that quantity for one three or four years old; repeating the dose every fifteen minutes till vomiting is produced. This usually produces immediate relief, and in a few hours, the disease if taken early, entirely passes off. This has never been known to fail in any case of incipient or spurious croup, known by the hollow sonorous cough. In malignant or genuine fully formed croup (marked by the formation of the peculiar membrane in the wind-pipe) it is doubtful if any remedy will cure.

Cultivation of Squashes.

JOHN MCKEE of Bristol, Vt., who raised the large squashes mentioned in the last volume of the **COUNTRY GENTLEMAN**, page 330, has kindly furnished us with his method of cultivation, as follows:

As soon as the ground is warm enough to insure quick germination, I dig, on a southern exposure, holes two feet deep, and two feet apart each way, excluding the bottom soil, and retaining the top. The holes should be filled within ten inches of the top with well rotted hog or stable manure; the former I prefer. The holes should then be filled up with the top soil taken out, and be allowed to remain three or four days till the hills are thoroughly warmed before planting the seed. Care should be taken to plant the seeds at the proper depth to insure their coming up—in a warm, dry soil from two to three inches, in a cold, wet soil from one to two inches deep.

As soon as the plants appear above the surface, place four bricks, blocks of wood or a small box large enough to place a pane of window glass upon; this will force them along rapidly, and protect them from the depredations of the bugs, &c. They should be watered once a day, till large enough to dispense with the covering, being careful not to apply cold spring water, or at a time when the sun shines upon them. Morning or evening should be set apart for this. I think one good healthy plant in the hill sufficient, as it will produce larger squashes. When the plants begin to cover the grounds, cut off all the runners from the main vine except two or three nearest the root, as these will set first and produce the best. Not more than one or two squashes should be allowed to grow on a vine. Soap suds, or liquid manure, is an excellent application for them while growing, being careful not to apply it too strong, or on the leaves.

Manuring the Pear.

MESSRS. EDITORS—We see it stated on all hands, by Horticulturists, that *Pears* require "high cultivation." We have here a warm dry loam, with coarse gravel subsoil. Can you not in a few words give us the definition of this term, in its application to our soil? and oblige. A SUBSCRIBER. *Oxford, Mass. Dec.*

There is very little soil in any of the eastern states that does not need manuring for the successful cultivation of the pear. The size of the fruit depends much upon it, but the flavor still more. Some of the finest pears in existence are nearly worthless with a poor soil and poor cultivation.

Farm-yard manure forms the basis of the best fertilizers. We have found nothing better than a compost made by depositing successively *thin* layers of old-pasture turf (or from fence corners,) and stable manure in about equal proportions, with, say one twentieth of leached ashes; ground bones, night-soil, charcoal dust, lime, street sweepings, &c. when easily procured, may be added with advantage. It should lie at least several weeks, and months would be better. The soil should be trenched, or plowed deep, and the compost mixed thoroughly through it. Liquid manure if strong enough, exerts a quick and powerful effect, possessing, as it does, three advantages over solid manure, namely, irrigating as well as manuring, passing at once into contact with the roots, and becoming equally and intimately diffused through the soil, more perfectly than any solid can be intermixed. If too strong, or too frequently or abundantly applied, it will kill trees.

It should be always borne in mind, that thorough cultivation, for the complete destruction of grass and weeds and for keeping the soil loose and mellow, is absolutely essential, and that without it, manure is of little comparative value.

Fruit Crop in Michigan.

With the exception of some injury by the apple worm, and to the plum by the curculio, this can be reported as splendid—not to be surpassed if equalled by any country; of all varieties, from the luscious strawberry, to the delicious peach and pear and health-imparting apple. Large quantities of the latter fruit have been shipped the past season, mostly to the west, yielding to the farmer as great a sum, and a much larger profit, than the surplus wheat crop.

While speaking of fruit, I wish to enter my protest against the use of quince stocks for the pear, for extensive cultivation. They are a decided failure in this region; three-fourths of them dying out the first or second year, and hardly any remaining healthy unless taking root above the insertion of the graft. The pear root is decidedly preferable, leaving the branches as near the ground as possible with *continued* high cultivation, and judicious pruning, and thinning of the fruit when over-loaded. Trees often bear themselves to death, other varieties as well as the pear. B. J. HARVEY. *Salmagundi, Lenawee Co., Michigan.*

There are several reasons why pear trees on quince stocks do not succeed. A common one is deficient cultivation, or no cultivation at all; for the short and thickly set roots must be abundantly supplied with enriching materials, as they do not, like other roots, go far in search of nourishment. Another reason is the

selection of wrong varieties; many of which will flourish for a short time and then perish, succeeding best while young and in the rich soil of the nursery, but immediately declining when removed to the neglected orchard. A third reason is the use of the wrong kind of quince for stock; a very few varieties will do well on almost any sort; but most varieties, even among those well adapted to dwarfing, will soon fail when not worked on the best French stocks. How far these influences may have operated in producing the losses spoken of by our correspondent, we can only know by further investigation, but it is hardly probable that "three-fourths," would "die out the first or second year," without their share in the unfavorable influences, when we remember that in western New-York, with a climate so similar to that of Michigan, immense numbers are now in successful cultivation, without a loss, when properly managed, of one in a thousand, except where the epidemic blight strikes them, and to which pears on their own stocks are equally liable.

Setting Out Large Trees.

There is a foolish eagerness with many persons, to set out *very large* fruit trees, with an expectation that they will be the soonest to bear. We know a very enterprising planter, who was determined to have his grounds not only planted at once, but to have large trees without waiting for them to grow. At great expense, he procured every tree he could find of large size and removed it at once to his grounds. Nurserymen had nothing large enough for him. Two or three years afterwards, observing him buying trees of moderate or small size, we asked him the meaning of his conduct. "Oh, I have had enough of big trees!" This was all he said, but it explained all. We observe in the last number of the New England Farmer, a statement to the point, from a correspondent. He says that five years ago he set out over a hundred apple trees. "Part of my trees were *large*, and a part *small*. The smallest have done the best; indeed, the largest tree in the orchard now, was one of the smallest when planted."

New Summer Apple.

H. STEARNS, of Felchville, Vt., sends us the following description of a summer apple, which has long been cultivated in Vermont, but not described in any standard pomological work. Perhaps this notice may lead to the discovery of its true name, if already known, or else become the means of introducing it for further trial among cultivators.

"It was originally called the *Summer Harvey*; and trees have been sold by some nurserymen as the *Early Harvest*. I am not certain but this is identical with the "Primate" of Thorp, Smith & Hanchett of Syracuse. The tree in question is of straggling, yet rapid growth, of dwarfish habit, comes very early into bearing, and is a prodigious bearer. Fruit of the largest size, first-rate for cooking or eating, greenish yellow when ripe, continuing green around the stem, of a high tart flavor, ripening from the middle of July to the middle of September. The best early market fruit in Vermont.

"Now if any one sends from Vermont to New-York or Massachusetts for *Early Harvest* trees, expecting to get the variety described above, he will be disappointed, as the *Early Harvest* of those nurseries is what is here called the *Yellow Harvest*, a fruit scarcely worth cultivating in this region."

The Black Gum on Peach Trees.

Last year I noticed a disease which had shown itself among the peach trees in this vicinity, and which was noticed in the March number of the CULTIVATOR. The fruit last year, wherever the trees were much affected, was entirely destroyed, while others bore but two or three here and there. At the present time the bark of some of the trees looks as if scathed by fire, and last year the trunk, (from the many exudations of the saps,) presented during the warm wet days of spring, an ulcerated character. In some respects the disease resembles the black knots, which often cover the damson plum tree, and there are grounds for believing it to be analogous, but whether caused by the same insects remains to be shown.

Some years ago, the Morello cherry became in all this region of country affected by the black knots, and, wherever it was not watched, covered the trees, and soon left them leafless and disgusting objects. If the disease can diffuse itself from the plum to the cherry tree, why may it not also to the peach? As a general rule, it is true, that each species of trees have insects that feed on them, peculiar to the species; but there are exceptions to general rules, and we find the common caterpillar feeding on the leaves of the apple, pear, and cherry.

It is yet a disputed question, whether the knots on the damson plum are caused by an insect; for although the curculio eggs have been found in the knots, it is under such circumstances as would not lead us to infer, that the excrescences are its work. The aspect of the interior of the knots look as if made by insects, and these may be so minute, as to escape detection by the naked eye or a common microscope. In all these fruit trees the foliage of the sap appears to be arrested by the compression of the fibers of the wood.

I have noticed that a number of gardens west of mine, have a great many plum and Morello cherry trees completely covered with the black knots; and the prevailing wind is a north wester. The peach trees, east and south of these gardens, as far as I have observed, with a few exceptions, exhibit the disease of the black gum; while those north and west are sound, and bore last year good crops. Hence, I would argue, that the insects are borne on the wind from tree to tree. In my own garden, I mentioned last year that some trees were diseased more than others, which I attributed to their bearing early or late fruit; but which I now think, is owing to their location with respect to the wind. I should mention the fact, that I have green and yellow fruited plum trees in the same garden, which exhibit no appearance of the knots; and an individual told me this day, that he had plum trees covered with the knots in his garden, intermixed with peach trees, and yet his peach trees were sound. I do not at present see how to reconcile these facts, but further experience may show whether or not, the disease mentioned is the same with that of the purple plum.

I have tried ashes, lime, and washing the trunks with sulphate of iron with some apparent benefit, but without any radical cure. H. Carlisle, Pa., Jan. 6, 1855.

Keeping Poultry in Large Numbers.

LUTHER TUCKER, Esq.—In the Co. Gent. of 25th inst., D. H. R. of Hartford, Ct., wants to know how to build a chicken house for "about 1000 fowls." If my poor opinion is worth anything, he will not build it at all. Fowls, in any large number, will not thrive, unless they have a wide range. They are, partially, a grazing animal. When the ground is bare of snow in winter, they pick the grass if they can get it, and are fond of green vegetables of any kind. In summer, they pick and eat grass every day. They are great scavengers after slugs, insects, and all kinds of flesh. They are better, also, for having some flesh food in winter; and abundant air, fresh and pure, they must have, always. Although I have seen it tried, I never knew a large collection of several hundred fowls, succeed in a confined place.

A few years ago some enterprising man from the country came near town, and enclosed an acre or two of ground with a high picket fence, and put up a building, at an expense of near or quite a thousand dollars, intending to supply eggs for the Buffalo market. He had his barn well done off with any quantity of roosts, nesting places, and other conveniences. He started his concern with seven or eight hundred chickens, and for a few weeks, crowing, cockfighting, laying and cackling went on to his heart's content. He had food of all kinds for them, and great anticipations were indulged of fortune-making in his chicken enterprize. But, three or four winter months told the story. The fowls got diseased—the hens first eat the feathers off the roosters—or what were left of them after they had fought themselves almost bare, and then the hens unfleeced, in the same way, each other. They stopped laying, were tormented with lice, got the "roup," went moping about the place, and died off like a pestilence; and by spring, but a few miserable, sickly things were left, with scarce life enough in them to crow up the morning!

The difficulty was not in want of food, nor care. But, from the necessity of the case, they were crowded in their roosts; they were disturbed by each other in their nests, and had not room enough anywhere, even with the outside range of an acre of land. The truth is, that to flourish, hens must have their liberty, when kept in large numbers. They want to range the fields by day, and not be crowded at night. They want a variety of food, and to help themselves to it. They need exercise, pure air, and enough of both. I knew one man, or rather the man's wife, in the Scioto Valley in Ohio, who kept five or six hundred fowls—that is, she told me she had that many—and I don't doubt it, for the whole territory, for acres about the farm, was speckled with them by day, and the trees, and the corncribs, and the barns, and the sheds were filled with them at night. They had a great big farm of a thousand acres, or more, and full corn cribs for many rods in length, where the hens went at pleasure, and they made nests under the trees, and among the bushes, and all about the buildings, and in the back kitchen, and just where they had a mind to: and they sat on their eggs, and hatched out their chickens at will—a self sustaining poultry establishment, in fact. This plan worked; but as to the profit of it, I doubt whether the old lady could give any intelligible account in the matter.

No; I believe the only way to make poultry profitable, is to keep them in the "old way." Proportion the number to the ground and buildings you have. Give them liberty to run at large for a portion of each day in warm weather, with comfortable quarters in winter, and pure air, always. I have known sundry other enterprizes, like the Buffalo one I mention, tried; but I never knew one permanently successful. They were all in turn abandoned. Yours truly, L. F. A. Black Rock, Jan. 2, 1855.



Prize Cow Bloom, Imported by L. G. Morris, Esq.

"Bloom," whose portrait we give above, was the winner of the 1st Prize in the imported class, at the N. Y. State Ag. Show, held at Hamilton Square, New-York, in Oct., 1854. She is the property of L. G. MORRIS, Esq., of Mount Fordham, Westchester Co. N. Y., by whom she was selected, and imported in 1852.

"Bloom," Red roan, calved January, 1850; bred by Mr. Fowle of North Allerton. Sire, Sir Leonard, (10,827.) Dam, Elvira by Eolus, (3733.)—G. d. Golden Pippin by Belvidere 2d, (3126.)—Gr. g. d. by Alive'O, (2995.)—Gr. g. g. d. by Eclipse, (2236.)—Gr. g. g. d. by Charge's Grey Bull, (872)—Gr. g. g. g. d. by the Paddock Bull, (477.)—Gr. g. g. g. g. d. by Browne's Red Bull, (97.)

List of Profitable Apples.

A Vermont correspondent, speaking of the most profitable apples for that state, makes the following remarks:—

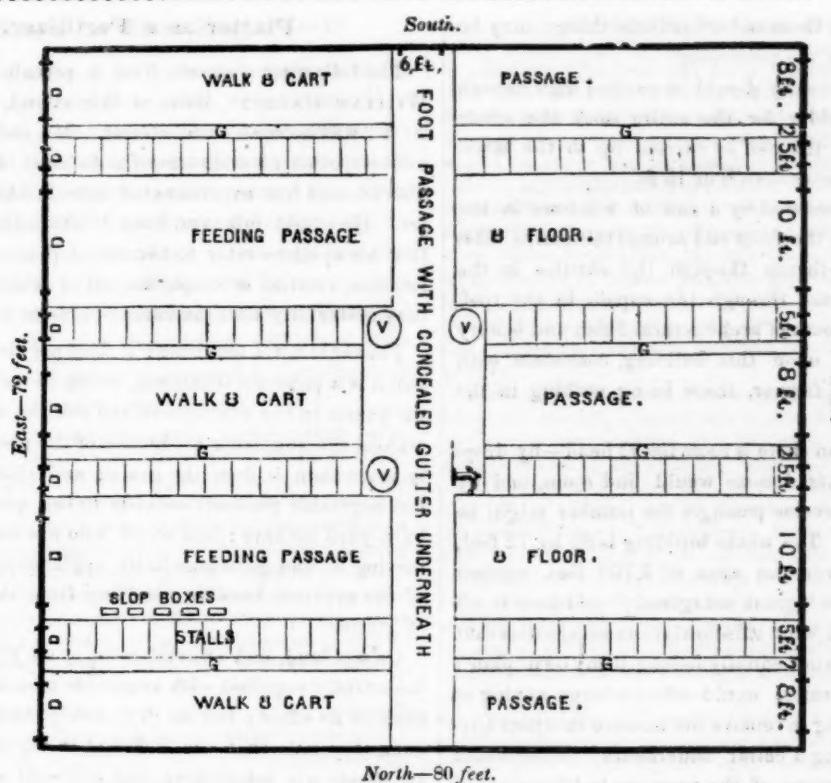
"The Baldwin, Roxbury, Russet and R. I. Greening are decidedly the best apples that can be raised in New England. From what experience I have had in fruit growing, the reply the man made when his advice was asked what varieties he should select, was not so very absurd after all. Says he, "If I were going to set out one thousand trees, I should choose nine hundred and ninety nine Baldwins, and I should not be particular about the rest." Nevertheless, after getting these useful kinds, we must have a few fancy trees."

Scratches.

MESSRS. EDITORS.—The following ointment has cured horses for me at as many as three different times, of this troublesome complaint. Only three or four careful applications of it were required. It was put on at night, after washing off all the dirt with soap suds, and rinsing with clean water. It is said that grease alone will cure the disease if used after a washing at night.

Take of flower of sulphur,..... .
Saleratus,..... .

Powder and mix them, and stir the mixture into one pound of melted lard, stirring until cold. A SUBSCRIBER.



Plan of a Dairy Barn.

MESSRS. EDITORS—It has been said that it is easier to pull down than to build up—to find fault with existing things than to devise better. It may be so with my objections to the great "octagonal barn." Yet, in accordance with my promise, I herewith transmit to you a rough draft of the ground plan for a *dairy barn*, which, to my eye, possesses some material advantages over any plan that I recollect to have met with in print. I do not, however, claim originality for the plan, for up in Cheesedom (the Western Reserve) a large number of dairy barns have within the last few years been erected, substantially on the same principle. And here let me say that it is the practice there, especially in large establishments, to put the cows in the stables night and morning to be milked—in the summer as well as winter. This is considered an improvement on the old fashioned plan of milking in the mud.

The plan I send you is designed for a "bank barn." The ground should descend to the south or east if possible. The entire lower floor, as will be seen, is devoted to stables and fixtures for convenient attendance upon the cows, and consists mainly of two double rows of stalls or stanchions for securing the cows, and two feeding passages, and three walks or cart ways, to facilitate the removal of the manure—also gutters are placed immediately behind the platforms on which the cows stand. To facilitate communication between the different parts of the establishment, a transverse passage is shown 6 ft. in width, and extending the entire width of the building. Beneath the floor of this passage should be placed an ample gutter for carrying off the manure from the other gutters, which should terminate in a tank at the south end. Here also would be the proper place for the manure heap, provided the manure is to be removed from the stable by wheel barrows, for no manure should be allowed to accumulate in the yards frequented by the cows.

Near the center will be perceived three large vats or tanks, and a pump. These tanks are for the manufacture of slops, and should be sunk in the ground so as not to freeze, and must be placed so as not to interfere with the cart passage or gutters.

Stanchions three feet apart, are the best fixtures for fastening the animals, and the feeding floors should be smooth and clean, and raised two or three inches above the platform on which the cows stand. If slop is to be fed, small boxes may be placed with their upper edges nearly even with the floor. The position of the doors is plainly indicated in the plan; also the width of the several parts.

This lower story should be made of substantial materials, and if of wood, so constructed as to be capable of easy renewal.

The second story is simple and easily supplied and arranged by any one to suit his own taste and convenience. The most simple and perhaps satisfactory plan would be, to have a threshing floor 16 feet wide, extending through the center, the whole width of the building. On each side of this floor, and corresponding with the feeding floors below, should be placed scuttles through which to pass down the hay and fodder. On one side and over the central cart passage, should be placed the granary, with small traps below to supply the slop vats.

In a building of this size, some might prefer two floors instead of one, and a division of the hay bays.

This, as well as a thousand other little things, may be left to the taste of the proprietor.

The walls of this story should be carried high enough to hold enough fodder for the entire stock the whole season, which, if the roof be carried up in the usual way, may be no more than 8 or 10 ft.

Ventilation is secured by a row of windows in the lower story above the doors and around the entire sides of the building—thence through the scuttles in the second floor—thence through the cupola in the roof. Of course any amount of architectural finish and beauty may be bestowed upon this building, consistent with the means of the farmer, there being nothing in the form to prevent.

Now in this plan there is room for 92 head—by dropping the slop vats, 4 more would find room, and by omitting the transverse passages the number might be increased to 104. The whole building is 80 by 72 feet, and of course covers an area of 5,760 feet, against about 8,200 in the "great octagonal;" and here is all modesty let me ask, what substantial advantage does that possess which does not equally belong to my own plan? Many eminent farmers would effect a large saving of room by preferring to remove the manure in wheel barrows or by having a cellar underneath. This would allow of a narrowing of the passages to the extent of about 15 feet, which would reduce the area to 4,560 feet. In what form can a greater amount of "elegant entertainment" be provided, in the shape of a barn for a stock of cows? And here I wish to impress upon the minds of my brother farmers the idea of COMPACTNESS, as connected with all their farm buildings. *If you would wish to secure the highest economy in buildings, combine as much as possible under one roof, and then put it in as near a square form as convenience will allow.*

The plan I have submitted, may be easily modified so as to accommodate a mixed stock—horses, oxen calves, sheep—every thing kept on the farm except pigs and poultry; they should have a separate building by themselves. The different kinds could have apartments fitted up for their special accommodation, and all being in compact shape, can be easily attended.

But I must close—the subject of farm buildings is one big with interest to the farmer, and cannot be disposed of well within the limits of a common newspaper communication; but if you will publish this, Messrs. Editors, I will promise not to say any more without your leave, about "octagonal" or any other kind of barns. HAWK-EYE. Keokuk, Iowa, Dec. 27, 1854.

Turkeys to Kill Grasshoppers.

I would advise your correspondent from Kentucky who is annoyed with grasshoppers, to keep on his premises a flock of turkeys. I was surprised a few years ago, at seeing large flocks of turkeys in the meadows of a neighboring farmer, an enterprising, close calculating man. He told me that they had been annoyed with grasshoppers, and that by keeping turkeys a few years, he got rid of them. I have since kept a flock on my farm, and think they more than pay their way, especially where a farm is infested with grasshoppers. W.M. COWLES. Farmington, Ct.

Plaster as a Fertilizer.

The following extracts from a private letter from WILLIAM GABBUTT, Esq., of Wheatland, Monroe Co., N.Y., will be read with interest. Mr. G. is one of the most experienced and successful farmers of that fertile district, and has experimented considerably with plaster. He would, however, have it distinctly understood that his opinions refer to the use of plaster on his soil, location, rotation of crops, &c., all of which, he thinks, may materially alter the value of plaster to the farmer.

Plaster is not a fertilizer; it does not enrich the soil; but it is a powerful stimulant, owing to its operation on the gasses in the atmosphere and soil, by which it increases the vegetable production of the plants, generally more than it does the grain; and this increase of the vegetable productions adds to the quantity of the barn-yard manure; and to all who are careful in preserving it, and judicious in its application, this is one of the greatest benefits resulting from the liberal use of plaster.

On wet land, and alluvial soils, or on ground that is bountifully supplied with vegetable mould, plaster has little or no effect; but on dry, sandy and gravelly, or even clay soils that are deficient in vegetable mould, its effects are astonishing, and a liberal application of it always remunerates the farmer for the expense.

The time of sowing is not very material, providing that it is in season for the young plants to receive the benefit of it. Plaster is not lost by being put on to the ground before vegetation requires its assistance; if it is not used by the plants the first season, it will be the next, for a bountiful supply of it will last for three or four years; but I think that the best time to apply plaster to the soil, for the benefit of any grain crop, and especially wheat, is, to sow it before plowing. I invariably sow mine in the spring, before breaking up. A liberal supply of it, put on at once, will answer for three years, as well as to apply it each season, which is a saving of labor. I sow out of the wagon, always before plowing, at the rate of from two to four bushels or cwt.s per acre, as the wants of the soil may require. The more there is applied at once, the longer it will last; but as the soil becomes supplied with plaster, or vegetable mould, its effects are lessened, and its frequent application not so necessary.

An application of plaster to the barn-yard manure is very beneficial, it fixes the ammonia, and hastens the decomposition of the dried vegetable matter, and increases very much, the fertilizing properties of the manure. I apply it twice during winter, or rather towards spring when the manure begins to ferment. I put it on the heaps by the stables, and all over the yard, and in the spring, when the manure is piled up, give the heaps a covering with it, using a ton of plaster to one hundred loads of coarse manure. Do not apply it on the sheep yards, until the sheep have gone to the pasture, for it injures the wool if they get among it.

One season, I put five tons of plaster on three hundred loads of manure, over the yards, and over the piles, and applied the whole on ten acres of dry, gravelly soil in the fall, and plowed it for the next spring's hoe crop. I had three bountiful crops of grain, corn, barley and wheat—one of clover seed, and a plentiful season of pasture, without any other application; but all the four seasons were favorable to the producing of bountiful crops; yet I am fully satisfied that a liberal application of plaster to the barn-yard manure will liberally remunerate for the labor and expense of applying it. W. GABBUTT. Wheatland, Jan. 29, 1855.

Best Sheep for New-England—II.

MESSRS. EDITORS—I send you the comparative consuming qualities and profits of the Merino and New Oxfordshire sheep, deduced from actual experiments; and here allow me to remark, if there are any farmers who are dissatisfied with the present returns from their fine-wooled flocks, they will please give this communication their careful attention. If, through the medium of the Country Gentleman, I can be the humble instrument of inducing a single person to introduce upon his farm a breed of sheep which will afford double returns, for food and labor expended, the object of these communications will be attained.

It is the general opinion among farmers, that large animals will consume as much more food than small ones, as their comparative weights differ. Should this argument prove true with two animals of the same species, (which I think is very doubtful,) it would be a still greater absurdity, to suppose that the consuming powers could be determined by the weight of so different species as the New Oxford and Merino. These two breeds have been trained for different purposes,—one for its thick coat of fine wool, without regarding its fattening propensities—the other, for a heavy carcass, without so much attention to the quality of its wool. I think, however, that according to food consumed, there is no breed of sheep which will produce more worth of wool than the New Oxford. A good flock will average 8 pounds easily, and will readily sell for 30 cts per lb.

The experiments between these two breeds have been very carefully and accurately conducted, in the following manner. Selected ten Merino ewes, four years of age, in perfect health: also, at the same time, selected eight New Oxford ewes about the same age; had them placed in comfortable quarters, and well watered. Commenced with each lot at the same time; weighed an equal amount of hay for each, from the same place in the mow, and continued the experiment for seven successive days, giving them hay enough so as to have them leave a little every day. That which was left was weighed and credited to each flock. The following result has been obtained:

10 merino ewes, weighing 769 lbs., consumed in seven days,.....	160 lbs. hay.
8 New Oxford ewes, weighing 1068 lbs, consumed in the same time,.....	140 " "

From this experiment, we learn that 9 New Oxford ewes with an aggregate weight of 1201 lbs., consume no more food than 10 Merino ewes, weighing 769 lbs. The relative profits of these two breeds may be set down as follows:

For the ten merino ewes, 50 lbs. wool at 40c. per lb., \$20.00 8 lambs, at \$1.50 each,	12.00
	\$32.00
9 New Oxford Ewes will shear 63 lbs. wool, at 30cts., \$18.90 14 lambs, at \$3 each,	42.00

\$60.90

In this statement I have given the highest figures we have been able to realize from Merino ewes, that have been carefully bred for a long course of years. Few sheep in this country will come up to it.

In figuring up the profits from the Oxford ewes and lambs, I have endeavored to set the amount low enough to insure equal results to any farmer who possesses a soil of medium quality. In the richest grazing districts, the profit would greatly exceed the sum I have set. There are many instances of these lambs attaining to over one hundred pounds weight, on nothing but the milk which the dam afforded, and common grass pasture. The largest lamb in our flock last season, (which was very dry,) weighed 104 lbs. at 7 months of age.

The scarcity of these sheep in this country, and the

high prices at which they are held, prevents the possibility of stocking our farms very plentifully with them at present. The best way for a general introduction of this blood at a cheap rate, is to cross them on to our Merino ewes. It is the opinion of many that so large a breed as the Oxford—and other long woolled species, would increase the size of the lambs so as to cause trouble at the time of parturition, but from the experience I have had with them the past season, such fears are without foundation. This cross produces lambs but very little larger than the Merino. The experiment with farmers in this section has proved very satisfactory. The lambs are extremely hardy. They will thrive on less milk, are more quiet in their habits, the size is greatly increased, and the mutton is superior in quality.

These half-blood ewe lambs should all be saved, and when old enough, coupled again with a full blood buck, having no relationship; and by repeating this process, always breeding towards the thorough bred Oxford, a beautiful flock of sheep can be obtained at a moderate cost. Good bucks can be obtained at prices varying from twenty-five to fifty dollars. Some extra specimens have been sold as high as one hundred and fifty.

Now let two or three farmers in a neighborhood club together, and purchase a buck of this or some other mutton breed, and the price shared by each one equally, would hardly be felt, and the increase on the size and thriftiness of the lambs, would nearly, if not quite pay for the buck the first season. A buck fully matured, and fed high, will serve a pretty handsome flock.

These sheep possess qualities and attractions which entitle them to the highest rank among our domestic animals. They are just suited to farms of moderate extent. The owner can realize from a few of them, a very handsome income, nearly all ewes of good size bearing twins. Their great square forms, and snow white fleeces, forming a pleasing contrast with the green pastures on which they feed.

They are orderly to a fault, having never caused me the least trouble. They are always found in the pasture, if the fence is passable. They can be managed by any young child, being fond of society and the caresses of the master.

Gentleman farmers, who like to see fine stock growing up around them, should by all means own a few of these sheep. I have never known an instance of a man becoming dissatisfied with them.

I had supposed, before I commenced breeding these sheep, that they were rather dainty in their feeding habits, and would require the best of keeping in order to make them thrive. This however is not the case. They rather choose the coarser weeds and brakes, a part of the time, to the best of hay.

The man who makes "two blades of grass grow, where one grew before," has been justly entitled a "benefactor of his race." Equally so, the man who spends his time, in breeding and diffusing a race of animals, that will make this extra blade of grass return double the profit to its owner. LAWRENCE SMITH. Middlefield, Mass.

A FINE PIG OF HIS AGE.—The *Massachusetts Ploughman* says "Mr. Willard Arnold, of Marlboro', slaughtered a pig, on the 22nd inst., that was only eight months old, weighing three hundred and eighty-eight pounds. The breed was a cross of Suffolk and Mackay."

Query—Was 338 lbs. the weight of the live or the dressed hog? If dressed, as we should infer, it is, as a Dutchman would say, a pretty pig story.

Mr. W. G. LEWIS, at a recent "Framingham Agricultural Meeting," stated that turnips cut up raw were an excellent food for fattening ducks.

Inquiries and Answers.

CANADA THISTLES.—(*John Feere, Crouland, C. W.*) We can recommend nothing better to kill Canada thistle than good plowing and thorough tillage. If the soil is heavy, a good summer fallow, say three plowings, and the necessary harrowings, &c., will generally prove effectual. If the land is too light to summer fallow to advantage, plant it with Indian corn, or some other hoe crops, two or three years in succession, working the land thoroughly during summer, with the horse and hand hoe. We have known a field, infested with thistles, rendered free from them by growing a heavy, smothering crop of peas. It is said that a good deep plowing with the Michigan double plow, is an effectual means of destroying thistles. At all events, it is worth the trial, since it will benefit the land should it not destroy the thistles.

C. F. J., Boston.—We have sent your letter to Mr. MARKS, Fairmount, Onondaga county, N. Y. Such cows as you refer to, are rarely met with.

GAS FOR COUNTRY HOUSES.—(*C. E. Kimball, Berryville, Clarke Co., Va.*) The apparatus you refer to, was one for the manufacture of gas, from a resinous liquid called Benzole. It is patented by Mr. O. P. DRAKE, a practical electrician, of Boston, who will doubtless supply you with the information you desire.

MICHIGAN DOUBLE PLOW.—(*A Subscriber, Montreal.*) On "a sandy farm, with a hard pan sub-soil," we should prefer in most cases, the ordinary subsoil plow,—which simply breaks the subsoil,—rather than the Michigan double-plow which brings the subsoil to the surface. The Michigan double plow is particularly adapted for breaking up and pulverizing the soil to a great depth, and for smothering weeds, &c. Wherever deep plowing rather than subsoiling, is required, the Michigan double-plow is the best implement we know of. It is manufactured by PROUTY & MEARS of Boston, and is for sale at all agricultural implement stores. Price without rigging \$12; all complete \$14. RUGGLES NOURSE & MASON of Worcester, Mass. have good subsoil plows. Price \$5. to \$13, according to size.

SIDE-HILL PLOW.—(*Luther Bailey.*) We cannot say "which is the best side-hill plow," but the "Sod or Side-hill Plow, Eagle 83," manufactured by RUGGLES, NOURSE & MASON, of Worcester, Mass., is a very good one. Price \$10,50. You will find it at any agricultural implement store.

DAIRYING—FEED MILL.—(*John F. Neel, Streets Run, Alleg. Co. Pa.*)—We do not know of any single work on dairying that comes up to your requirements. We can send you by mail, prepaid, for \$1, "EVANS' Dairy Manual," which contains much useful information. You will find an excellent scientific treatise on cheese and butter making in "JOHNSTON'S Agricultural Chemistry," which we can send you prepaid for \$1.50.

"**MAYNARD'S PATENT SPIRAL CORN AND COB CRUSHER AND GRINDING MACHINE,**" manufactured by R. SINCLAIR & CO. of Baltimore, Md., is highly spoken of. Its price in this city is \$35. The "patent Conical Mill," manufactured by Charles Ross, Rochester, N. Y., is highly recommended by those who have used it as well adapted to grind and dress wheat, or corn for family use, as well as for crushing all kind of grain for farm stock. There are two Cincinnati Burr stone mills,—STRAUB'S Patent, and W. G. BURROWS' Patent,—which are said to be excellent. The price is from \$100 to \$200.

CORN GROUND IN THE COB.—(*R. Greene.*) We have never heard of any injurious effects from feeding corn ground in the cob to horses. We have fed considerable corn ground in the cob to seven horses, two of which had recently come from Indiana. This span manifested a decided preference for pure corn meal, and still more for corn in the ear, but the others eat the corn and cob meal without any difficulty, and did

well on it. We think there is less advantage in grinding the corn in the ear for horses and pigs, than for the ruminant animals.

PRICE OF WOOL—FAT SHEEP.—(*C. H., Rutland, Vt.*) The price of wool, after another shearing, depends on so many circumstances which it is impossible at present to foresee, that we can give no satisfactory answer to your question. We have little hesitation in saying that "the demand for fat sheep and lambs this year," will be full as "good as usual."

MANUFACTURE OF HOME POUDRETTE.—(*T. M. F., Belchertown, Mass.*) You will find an article on this subject in the June No. of the CULTIVATOR for 1854, page 176, or in the third volume of the COUNTRY GENTLEMAN, page 277. You will find an article on the manufacture of superphosphate from bones in this number.

COMMERCIAL POUDRETTE.—(*A. S. M., Fredonia, N. Y.*) The "common poudrette of commerce" is usually not as good as it might be made; but we question if a good article can be made cheap enough to compete with Peruvian guano. If the barn-yard manure is good, made for instance by grain fed horses or cattle, or still fed cows or hogs, it would be much cheaper at 50 cents per load, than any poudrette, guano, or other artificial fertilizer now in market.

It will be cheaper to grind the slaughter-house bones in the plaster mill, than to dissolve them in sulphuric acid at five cents per lb.

KETCHUM'S MOWER.—I wish to purchase the coming season, a Mowing Machine, and of course want the best. Do you know of any thing better in that line than Ketchum's? A. A. C. [We do not.]

HOMINY MILL.—I observe in a late number of the Country Gentleman, some inquiries in regard to a Hominy Mill or Machine. If you obtain no reliable information on the subject, your correspondent may do so by addressing J. Bickensderfer Jr. Tuscarawas, Tuscarawas Co., Ohio, who has an excellent machine (patented) in operation, driven by water; but which I have no doubt might be operated to advantage by one of WHEELER & MELICK's double Horse-powers.—N. BICKENSDERFER. Conneaut, O.

J. C. F. inquires where he can procure a Mastiff Dog. Can any of our readers inform him, and the price?

We have had several inquiries as to where the Report of the Proceedings of the American Pomological Society at its last session, can be had. Will some officer of the Society, please inform us whether it can be procured by persons not members of the Society—and if so, of whom, and at what price, including prepayment of postage?

WHITE DAISY.—A correspondent wishes the experience of our readers in destroying ox eye or white daisy.

MILLET.—Will the correspondent of your paper, who recently recommended millet, be kind enough to tell us where the seed can be had, and what the price is per bushel; and whether he thinks it will do well so far north? I. A. L.

The seed can be procured of Wm. THORBURN, seedsman, of this city, at \$2.00 per bushel.

GAME FOWLS, &c.—We have several inquiries as to where game and other varieties of fowls can be obtained. Breeders would do well to advertise in the COUNTRY GENTLEMAN.

BROOM CORN.—Will you, or some of your numerous subscribers, give us the best mode of cultivating broom corn? What kind of soil is the best? and would land that has been cultivated a year or two previous, be preferable to sod? After giving it a liberal dressing of barn-yard manure, (it being a rank feeder) what kind of specific or artificial manure would be best to put in the hill? The proper time to break down, the

best machine for stripping off the seed, the price and where to be had, &c.? A YOUNG FARMER. Ct.

Will some of our experienced correspondents answer the above?

SIDE-HILL BARN.—I contemplate building a barn on a side hill, and wish to make an entrance at the end about 20 feet above the ground floor, for driving in loads, and also wish to use the same floor for threshing. How shall I arrange the barn with the stables on the ground floor, so as to make it convenient for feeding, and at the same time convenient in every other respect? I wish to make the lower story about 10 feet high. L. S. WELLS.

BONE WEN.—Henry Lawson of Independence, Buchanan County, Iowa, has an ox with a bone wen on the right upper jaw, and would be glad if any of our correspondents would tell him how to cure it.

UNLEACHED ASHES AND URINE. (A Subscriber, Pittsburgh, N. Y.)—Unleached wood ashes will immediately liberate whatever ammonia there may be in urine united with acids. In the summer season, urine mixed with ashes, emits in a short time, a very strong smell of ammonia, as any one who has tried it must have observed. In the winter the evolution of ammonia is not so rapid, yet the tendency is the same in both cases, and the practice cannot be recommended, except, perhaps, where urine is applied directly to plants, and it is desirable to accelerate fermentation; for urine should always be fermented to some extent before it is used, as it is well known that *fresh urine* proves injurious to plants.

PLASTER NOT ALWAYS BENEFICIAL.—Will you or some of your correspondents state through the Country Gentleman, the reason why plaster will do no good on our lands here, which are of rather a clay soil. It has been tried as a top dressing for corn. I have tried it as a top dressing on grass lands, sowed it on uplands and on the bottom lands by the river, where the soil was more sandy, without any benefit at all in either case. Yours, J. E. HANFORD. Wakeman, O.

Little is yet known of the *rationale* of the effects of plaster. On dry uplands remote from the sea, it usually benefits clover, especially in a dry season. On low meadows it is almost invariably of no use; even on uplands it seldom benefits the cereal grasses, such as timothy, red top, &c. On corn, as far as our experience enables us to judge, the action of plaster is very curious and uncertain. It sometimes increases a crop several bushels per acre, and another year, on the same soil, does no good. Have you used plaster on clover, and what was the effect?

UNDERDRAINING.—You would oblige by informing me what is the best plan for draining land that is level and has no outlet for water except on the adjoining farm? Will a well sunk in the field answer the purpose of an outlet? What is the mode of constructing air drains practiced in England? Are air drains advantageous and can the ordinary tile drains be made to perform both services, i. e. for water and air. By answering the above you will oblige A SUBSCRIBER. New-York, Feb. 6, 1855.

On many of the English farms wells are sunk fifteen or twenty feet deep, filled with stone, and the water drained into it. The success of the operation depends on the nature of the subsoil. Air drains and underdrains are precisely the same thing. We never knew drains made simply for the purpose of supplying air to the soil; they are used to drain land and for no other purpose, though it is probably true that the air goes up the drains and permeates the soil. Will some of our correspondents give their experience in draining land into wells?

MOWING MACHINES.—I have just seen in the COUNTRY GENTLEMAN, an inquiry whether there is any mower better than Ketchum's. I would say without hesitation, that I think there is. I have tested the

qualities of three different machines; therefore think I am justifiable in making the above assertion. I have used Ketchum's, and Mann's, and Mann's improved machines. I have one of the latter, a combined mower and reaper, and can say that it works finely, both as mower and reaper, doing its work with one-third less power than the Ketchum machine, and is as easily moved from field to field as a cart or wagon, without loading or unloading. The machine can be had at Hoosick Falls, Rensselaer Co., of David Ball. J. WELLS. North Easton, N. Y.

FLAG STONES FOR STABLES.—Will you, or some of your correspondents inform me how flag stone would answer for stable floor, for cattle, in a bank barn. A SUBSCRIBER.

CORN PLANTER, &c.—Will you be so kind as to inform me in your paper where I can get a machine that will sow small grain broadcast, and the price. Also I should like to get a corn planter that will plant corn at any distance I might desire, and the price. WILLIAM SMITH. Benton, Lafayette Co., Wis.

Will some of our readers answer the above?

LIQUID MANURE TANK.—My cow stables are built on the side of a hill. And under them I have a cellar for the manure, open on the lower side. I am desirous of putting my manure on the land in the liquid form. Do you think it would be injurious to the cattle to make the cellar under the stable into a liquid manure tank, by building up the wall on the lower side of the cellar. There could be a space kept between the tank and the stable floor, so that a current of air could circulate between them. A YOUNG FARMER. New-York.

The liquid manure in a tank, if kept well saturated with gypsum, would probably give off no more ammonia or other gases than the solid manure as ordinarily managed in cellars, and therefore we can see no reason why it should be any more injurious to the animals in the stables above.

CHICKEN MANURE.—A correspondent wishes to know the best method of applying chicken manure. Will those who have experience give their views?

AGRICULTURAL MACHINES.—(W. H. M., Connellsville, Penn.) If you will write to the manufacturers they will be glad to furnish you with the desired information.

TAX ON IMPROVED STOCK.—A correspondent at South Woodstock, Windsor county, Ct. wishes to know if farmers are usually taxed higher for superior cattle, than those who, by indifference, neglect, or want of energy, have inferior stock. It appears that a friend of his has a fine stock of full blood and grade Durhams, and is taxed enormously for them. We agree with him that this is "bad policy," though we are not prepared to say that it is "unjust."

TREATMENT OF YOUNG FRUIT TREES.—Will you in your next, give me the best mode of treatment for young fruit trees, say peaches, plums and apples, which have been set out say two and three years? What kind of manure is the best to mix with the soil in the spring? W. P. D.

The inquiry is rather indefinite, and we can therefore only answer in a general way, keep the soil well enriched with manure, mellow, down to the roots, and clear of weeds and grass, by thorough cultivation. Probably no manure is better than a compost of turf, muck, and yard manure, and a small portion of ashes. Any old or rotted manure is good, and fresh manure properly worked in, usually succeeds well, but the other is better.

ASCENT OF THE CERCULIO.—Will you inform me through the Cultivator, whether the cerculio can ascend from the ground into a fruit tree by means of its wings, or whether it crawls up the body of the tree?

It crawls up the tree, and when the weather is warm, ascends by flying without difficulty.

Top-Dressings for Wheat and Rye Crops.

MESSRS. EDITORS.—At a recent meeting of farmers, the conversation turned upon the probability of continued high prices for grain, or of a large demand for all kinds of exportable produce during the coming season. This was generally considered highly probable, even if there should be a cessation of the present war in Europe; and there was an equally general opinion that this prospect of large demands and high prices ought to induce farmers generally to raise as much grain as possible. One member said that in consequence of this prospect, he had already put in as large crops of wheat and rye as he had the means to do. And further, he said he was resolved to make these produce as much as possible, by the use of some concentrated fertilizers to be applied as top-dressing in the spring. He inquired what any of those present would advise him to apply in this way. His wheat was on a clay soil, and his rye on a gravelly soil, with a clay subsoil. As none seemed willing to take the responsibility of advising, or had any knowledge of such a practice, except that some had used a top-dressing of gypsum in a few instances, it was proposed, and generally agreed to, that you should be consulted, and information desired, so far as your convenience and many avocations might permit you leisure for a reply.

A.

Of all the concentrated fertilizers we are acquainted with,—and we have used the nitrates of soda and potash, muriate, sulphate and carbonate of ammonia, bone dust, superphosphate, Liebig's Patent Wheat Manure, soot, rape dust, woolen rags, and a variety of mineral manures,—we know of none, at present in the market, so cheap and good, as a top-dressing for wheat or rye, as Peruvian guano. Sulphate of ammonia is a splendid manure for wheat, but, at present prices, Peruvian guano is a cheaper source of fertilizing elements. Bone dust, applied at the rate of ten hundred lbs. per acre, is a good manure for wheat. The first year of its application, such an amount would probably increase the wheat crop as much as 250 lbs. of *good* Peruvian guano. The bone dust, however, would prove the more lasting in its effects. Could fine bone dust be obtained for \$10 per ton, we should prefer it to Peruvian guano at \$50 per ton.

But, as we have said before, in most cases Peruvian guano is by far the cheapest artificial manure that can be used as a top-dressing for wheat and rye. We would sow 250 lbs. per acre, as early as possible in the spring. If the guano is good—containing say 16 per cent. of ammonia—and the spring is somewhat wet, we should anticipate from such a top dressing, eight extra bushels of wheat per acre. In an average of seasons a less, rather than a greater increase may be expected. The 250 lbs. of guano will cost in New-York \$6.25, and for this you get from six to eight bushels of wheat, and a proportional increase of straw.

The guano should be passed through a sieve, and all the lumps broken. It may then be sown broadcast on the wheat or rye without fear of injury,—for though it will destroy the germinating principle of most seeds, we have never known it to injure growing crops when sown broadcast on them, except, indeed, one instance, where an enormous quantity was used by mistake, probably a ton to the acre, when all vegetation was destroyed. We would advise farmers to mix nothing with

the guano, not even plaster, but especially to avoid ashes or lime.

Spring Wheat and its Cultivation.

MESSRS. EDs.—There is an article of spring wheat as I have been informed, which is raised in Canada, called the "Canada Club," which has been highly recommended to me; and as I have some thoughts of changing the usual oat crop for some other grain, as a seedling down crop, I wish to learn something more about the above mentioned wheat. Do you know anything about it? Where can it be obtained, if wanted, and at what price?

I notice in the last CULTIVATOR some remarks about a "Tea Wheat;" my queries about this article, are the same as the former. You will very much oblige me, for any information you may give respecting this grain.

Oats I regard as an exhausting grain to soil, and with me grass seeds have not taken as well with oats as with other grain. What think you of the change?

JAS. B. WHITCOMB. Brooklyn, Ct., Feb. 1, 1855.

We have not much acquaintance with the Canada Club wheat, but it is said to be a good spring variety. The Fife wheat, largely cultivated in Canada, we know to be an excellent spring variety. We should not be surprised if it were found that the Canada Club and the Fife are the same variety. They may be obtained at almost any seed store at a little over the price of common wheat.

We do not know the origin of the "Tea wheat." The same variety of wheat is often grown in different places under different names. Out of 35 varieties of wheat sent from this country by B. P. JOHNSON, Secretary of the New-York State Agricultural Society, to the Messrs. LAWSON of Edinburgh, it was found, on testing them in their grounds, that not one out of the thirty-five was a new variety. The Tea wheat sent us by Mr. BLIVEN, was a very fine sample, and it is doubtless a good variety, whether new or old. The New-York State Ag. Society, at the last annual meeting, awarded C. W. ELLS of Westmoreland, Oneida Co., N. Y., the first premium on wheat, for a crop of "Tea spring wheat." The land the previous year was in corn, well manured with barn-yard manure, and produced a crop of 80 bushels per acre. It was plowed eight to ten inches deep the next spring, and, without any manure, was sown broadcast, April 30th, with two bushels per acre of *Tea wheat*, previously washed in strong brine, and dried with as much lime as would adhere to the wheat when wet. The yield per acre was 38 bushels and 18 lbs. The second premium was awarded to H. MASSEY of Watertown, Jefferson Co., N. Y.; and this crop also was of "the variety called Tea wheat." The land was a gravelly loam, planted with corn and potatoes the previous year; 20 loads of distillery manure were drawn on to it during the winter; well plowed in the spring, and sown broadcast on the 20th of April with 1½ bushels per acre. The yield was a fraction over thirty bushels per acre by weight.

Grass seeds seldom take well when sown with oats. We should much prefer to sow clover or grass seed with spring wheat than with oats, though, as a general thing, we believe it is found that seeds do better, sown early in the spring, with winter wheat than with spring wheat, or even than with barley.

We shall be glad of the experience of our readers in the cultivation of sprung wheat,—best varieties, &c.

Oil and Fish as Fertilizers.

Oil is composed of the same elements as woody fibre, and like it furnishes, by decomposition in the soil, carbonic acid to plants. The chemical value of carbonic acid none can doubt; probably eight tenths of the dry matter of most of our cultivated plants is derived from it; and its action in rendering the mineral matter of the soil soluble is well known. But the commercial value of carbonic acid, or rather of substances which by decomposition yield it, is another question. The atmosphere contains an immense quantity of carbonic acid, and every shower of rain brings it to the soil. Plants absorb this rain water, and with it the carbonic acid, which, in the organism of the plant, is converted into starch, oil, sugar, gum, woody fibre, &c. The large amount of woody fibre found in wheat straw, corn stalks, clover, the grasses, &c., is principally derived from the atmosphere. By using the wheat straw, stalks, &c., as manure, and by plowing in a few green crops of clover, peas, &c., we can supply to the soil a large amount of carbonic acid, at an exceedingly cheap rate. Possessing such an easy means of supplying his soil with all the carbonaceous matter it requires, the farmer need not, and, guided by experience, does not buy manures with any reference to the carbonic acid they can supply to plants.

Oil, sugar, starch, gum, &c., furnish to plants the same fertilizing elements as the woody fibre of straw, clover, &c., and we do not know that they are any more valuable, except perhaps that they decompose more rapidly and furnish more carbonic acid in a given time. Many eminent writers, especially among the ancients, attribute great fertilizing value to oil; but this is not so much to be wondered at, seeing that they called night-soil an oily manure. A few years since oil was highly recommended as a manure for turnips in England, and many experiments were made with it. Some of them, which gave favorable results, were published, and for a time oil was recommended as a substitute for bones. Farther trial, however, proved it to be of little value, and it soon fell into disuse.

One of our best agricultural writers appears to entertain a different opinion from the above, for he has recently pronounced oil "*one of the most powerful fertilizers yet discovered;*" and says one of the best corn crops he ever saw in Connecticut was manured with the "refuse of whale ships." The refuse matter most probably contained much nitrogenous matter, and, therefore, it is by no means certain that the benefit derived was due to the oil. LAWES has shown that turnips require more carbonaceous manure than any other farm crop, and yet in his extensive turnip experiments, oil did little or no good. M. KUHLMAN, speaking of his experiments with various manures on grass, says, "rapeseed oil, in 1845 as in 1844, produced no effect."

The same writer advocates a more extensive use of fish as a manure on the sea coast; and in this we most fully concur. But, as the subject of manufacturing a portable manure from fish is now receiving much at-

tention, he will excuse us for referring to what we deem a mistake in the following paragraph:

As a matter of fact, these fish contain all the valuable fertilizing materials, of the best Peruvian guano. That manure is simply the flesh and bones of fish digested in the stomachs of sea birds, and dried in a rainless climate. The only advantage which Peruvian guano has over the fish, is in the fineness of its particles, and in its dryness. If we had a cheap process of depriving the fish of its water, without evaporating its gases, we should have a manure at home as valuable as that of the Chincha Islands.

Peruvian guano, according to this, is simply dry fish in a finely divided condition. This is true to a certain extent only. Peruvian guano may be considered as fish dried and finely pulverized, *with the oil and other carbonaceous matter burnt out of them.* Fish are composed of say three substances, bones, nitrogenous matter, and oil. When eaten by animals the oil is burnt in the lungs, and expelled in the form of carbonic acid gas and water; the nitrogenous, or *fleshy* matter, composed of the elements of oil chemically combined with nitrogen, is decomposed in the body of the animal, a portion of the oily or carbonaceous elements being used as fuel, and given off as gases through the lungs and pores of the skin, while the nitrogen enters into new combinations with the other portion, and is expelled from the body, together with the phosphates or bones, in the excrements. Guano, therefore, is not simply dry fish, but the nitrogenous matter and phosphates of fish.

This separation of the carbonaceous matter and its expulsion from the body as carbonic gas, takes place in the consumption of all food. Nature intended that vegetables should be used for the support of animal life, and the requirements of vegetable growth are such, that the portion of plants which is *unavoidably* dissipated in the air, when fed to animals, is not needed in greater proportion than the atmosphere and the excrements of animals can supply.

Fish are not valued by farmers as highly as theory would indicate; and we have sometimes queried whether this was not owing to the large quantity of oil which they contain. Certainly the decomposition of fish in the soil would furnish the plants with a greater proportion of carbonic acid as compared with ammonia, than nature intended. And it is in our view highly probable that if some method, analogous to the processes of nutrition, could be discovered, whereby the oil might be separated from the fish, and the nitrogenous matter and phosphates be left in a finely divided condition, such a manure would prove more valuable than the entire fish. A manure, nearly equal to Peruvian guano, is manufactured in France by boiling fish, pressing out the oil, and drying and grinding the residuum. It contains 14½ per cent of ammonia, and 22 per cent of phosphate of lime. It is sold at \$34 per ton, and is unquestionably a cheaper manure at that price, than even the *best* Peruvian guano at \$50 per ton. It will not do, however, to assert, as some do, that it is quite equal to it, since, for reasons which will at once present themselves to the minds of our readers, it can never be made to contain as much ammonia in a given weight. We understand a company is about establishing a manufactory in this country, and we wish them abundant success, and can see no reason to prevent it.

We shall speak of the manufacture of fish manure in a future number. In the meantime we shall be glad if our readers will furnish us with any information they may possess on the subject. Will not some of our correspondents on the sea coast give us their experience in the use of fish as a manure?

Excelsior Agricultural Works,**Warehouse and Seed Store.**

No. 369 and 371 Broadway, Albany, N. Y.

THE subscriber is prepared to furnish to order a full assortment of Farm Implements and Machines, adapted to all sections of the country both north and south, among which may be found,

The Excelsior Changeable R. R. Horse Power.

" " Threshing Machines with Separators

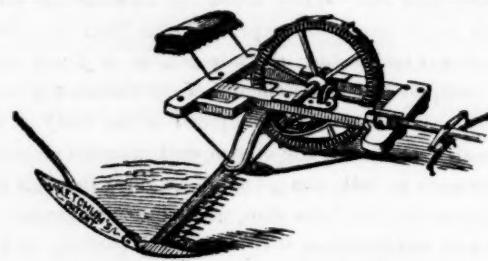
" " Cider Mill, Krauser's Patent.

Mowing and Reaping Machines, Grist Mills, Corn Shellers and Clover Hullers; Circular and Cross-cut saw mills adapted to the Horse Power, for cutting fire-wood, fence stuff &c.

The list of Field and Garden Seeds is complete—embracing most of the Premium Grains on exhibition at the recent winter Show of the New-York State Agricultural So. Among them is the Magnum-bonum Wheat, which is highly spoken of and apparently of great merit. Also a general assortment of Fertilizers.

RICH'D. H. PEASE,
Successor to Emery & Co.

Feb 22—w&m1t.

**KETCHUM'S MOWER.**

THE subscribers would inform their patrons and the public, that they are the sole authorized agents in this City for the sale of the above machine. They offer them on the most favorable terms, and with renewed assurance of its utility. With the recent improvements in its manufacture, it is without doubt the best, if not the only well established Mower now before the public.

For sale at the Albany Ag. Works on Hamilton, Liberty and Union Sts., Albany. EMERY BROTHERS.

North River Agricultural Warehouse and Seed Store.

GRIFFING & BRO., No. 60 Cortland St., New-York.

PLOWS, Harrows, Vegetable Cutters, Root and Bush Pullers, Ox Yokes and Bows, Reaping and Mowing Machines, Corn Planters, Picks, Hoes, Shovels, Spades, Seed Sowers, Corn Mills, Water Rams, Suction, Force and Endless Chain Pumps, Churns, Horticultural Tools, Hay, Cotton and Cheese Presses, Horse and hand hay Rakes, Garden and Fire Engines, Grind stones, Vegetable Boilers, Field and Garden Rollers, Bull Rings, Cattle Ties, Hay-knives, Cultivators, &c.

Feb. 15—w&m2m

Fertilizers.

PERUVIAN GUANO, with importer's brand on each bag —price \$48 per ton of 2000 lbs. In less quantity, 2½ cents per lb.

Improved Superphosphate of Lime of the best quality, No. 1—\$45 per ton of 2000 lbs.

Bone Dust—warranted pure, at \$2, \$2.25 and \$2.50 per barrel.

Ground Land Plaster.

Pulverised Charcoal.

Poudrette. For sale by A. LONGETT.

No. 34 Cliff Street, one door from Fulton.

Feb. 22—w4tm2t. New-York.

To Agriculturists, Manufacturers, &c.

DRAWINGS and Engravings on wood, of animate and inanimate objects, executed at fair prices and in the best style, by J. B. SEYMOUR,

Feb. 22—w&m3m 57 Broadway, Utica, N. Y.

N. B. Portraits of animals true to nature.

POLAND OATS FOR ALL.

HAVING grown a large crop of Poland or Dutch Oats, I am prepared to supply all that want, at one dollar per bushel of 40 lbs. each, including new bags, and delivered free at the N. Y. C. R. R. J. A. CLARK,

Feb. 1—w&m1t * Marion, Wayne Co., N. Y.

OSIER WILLOWS, &c.

THE subscriber will furnish cuttings of the SALIX VIMINALIS, the best OSIER WILLOW, at \$3 per 1,000. They can be sent during the winter and early spring to all parts of the continent.

Orders addressed to the subscriber, care of C. P. Williams, Albany, N. Y., will meet with prompt attention.

Also all varieties of Fruit Trees, Foreign and Native Grapes, &c. Catalogues sent on application.

S. P. HOUGH,

Feb. 8—w8tm2t Hillside Nurseries, Albany, N. Y.

COLDENHAM NURSERY,

Seven miles West of Newburgh, Orange Co., N. Y.

THE Subscriber continues to offer as heretofore, a large and well selected stock of FRUIT TREES, among which is the celebrated Great Bigarreau Cherry, worked from the original tree 30,000 Apple trees, from 5 to 10 feet high and very thrifty, from \$15 to \$17 per Hundred.

All orders punctually attended to, and trees packed in moss with care, and forwarded from Newburgh as required.

LINDLEY M. FERRIS,

Feb. 1—w4t—m1t Coldenham, Orange Co., N. Y.

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vitæ, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also, Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern States—from Boston, by railroad and boats. For terms, &c., address, post-paid,

March 1—m2t WM. MANN, Bangor, Me.

MANURES.

PERUVIAN Guano, Bone-dust, Superphosphate of Lime, Poudrette, Plaster, Charcoal, Oil of Vitriol, &c., for sale by

GRIFFING & BRO.,

Feb. 15—w&m2m North River Agricultural Ware House, No. 60 Cortland St. New-York.

"GET THE BEST."**Webster's Quarto Dictionary.**

WHAT more essential to every family, counting room student, and indeed every one who would know the right use of language—the meaning, orthography, and pronunciation of words—than a good English DICTIONARY? of daily necessity and permanent value.

WEBSTER'S UNABRIDGED

Is now the recognized Standard, "constantly cited and relied on in our Courts of Justice, in our legislative bodies, and in public discussions, as entirely conclusive," says Hon. JOHN C. SPENCER.

Can I make a better investment?

Published by G. & C. MERRIAM, Springfield, Mass. Sold by all Booksellers.

Feb. 22—w1tm1t*

Excelsior Horse Power**AND THRESHING MACHINE.**

THIS Portable Lever Four Horse Power is an improvement on Warren's Patent, (which we own,) and by an experience of more than three years, it proves to be the best and cheapest yet known. None have ever failed to give entire satisfaction in all respects. It is simple in construction, and easily understood by any operator. It may be used with one to four horses. We therefore offer it to the public as a most desirable machine for various purposes.

The Thresher is a superior Spike Machine suited for the Power. With these machines 200 bushels or more of dry Wheat are threshed in a day.

Weight of Power about 550 lbs.—Weight of Main Driving Wheel 300 lbs.—or altogether about 900 lbs. Weight of Thresher 200 lbs.

Price of Power and Pulley Box, &c., \$85.

Cost of Patent Riveted Stretch Leather Band, 3½ inch wide, 40 feet long, \$7.50.

Price of Threshers, No. 1 and 2, \$40 and \$45.

Orders will be duly attended to.

④ Terms cash on delivery in this city.

PLANT BROTHERS.

Gen'l Com. Merch'ts,

Feb. 22—w&m1t 75 Pine street, New-York.

Choice Field and Garden Seeds,

AT the North River Agricultural Warehouse.
GRIFFING & BRO.,
Feb. 15—w&m2m No. 60 Cortland St., New-York.

A PARTNER IN PRINTING.

AFOURTH or a third part of a well established Agricultural Newspaper and Job Printing Office, will be sold on reasonable terms to a practical printer, competent to manage the mechanical and business department of the concern. Apply for information at this office. Feb. 8—w&m11t

FARM FOR SALE.

AFARM of One Hundred acres in MILO CENTER, Yates Co., N. Y. a short distance from the line of the Canandaigua and Elmira Rail Road. It is well watered by springs and a fine stream, easily cultivated—soil a fine gravelly loam, unsurpassed for either grain or grass, with exception of about 20 acres which is choice natural meadow land.

It has upon it a good Dwelling House and out Buildings—is in a good neighborhood, convenient to churches, school houses and stores, and is in every respect one of the most desirable locations in the state. For terms which will be made easy, apply to GASPHER & CO., 41 Water St., New-York; Caleb Gasper, Esq., Marellus, Onondaga Co., Gen. Young, Esq., Milo Center, Elias Bently, Esq., Sandy Creek, Oswego Co., S. Booth, Esq., Branchport, Yates Co., Norman Seymour, Mechanicsville, Saratoga Co., N. Y., Judge Ellsworth, Pen Yan.

March 1—mtf—

FOWLERS AND WELLS, No. 308 Broadway, New-York, publish the following valuable Scientific and Popular Family Journals:

LIFE ILLUSTRATED:

A FIRST-CLASS WEEKLY NEWSPAPER, devoted to News, Literature, Science, and the Arts; to ENTERTAINMENT, IMPROVEMENT and PROGRESS. ONE OF THE BEST FAMILY NEWSPAPERS IN THE WORLD. TWO DOLLARS a year.

The Scientific American says: "It is of large size and faultless typography. Almost every branch of human knowledge is treated by able writers." The Rhode Island Reformer says: "We pronounce it the most beautiful Weekly in the Union."

THE WATER-CURE JOURNAL:

Devoted to Hydropathy, its Philosophy and Practice; to Physiology and Anatomy, with numerous Illustrations; and those laws which govern Life and Health \$1 a year. The most popular Health Journal in the world. [Eve. Post.

THE PHRENOLOGICAL JOURNAL:

Devoted to all those Progressive measures for the elevation and Improvement of Mankind. \$1 a year.

"Devoted to the highest happiness and interest of man, written in a clear and lively style, afforded at the 'low price' of one dollar a year, it must succeed in running up its present large circulation to a much higher figure." [N. Y. Tribune.

FOR THREE DOLLARS, in Advance, a copy of each of these three Journals will be sent one year. Address, prepaid,

FOWLERS AND WELLS,
Feb. 8—w&m2t No. 308 Broadway, New-York.

CHOICE POULTRY FOR SALE

BRAMHA Pootra or Chittagong, from \$3 to \$5 per pair. Imperial Chinese, \$3.00 per Pair.

Also cross of the Bramha Pootra and Imperial Chinese, \$3.00 per Pair.

The stock is from that of David L. Barnard, Clintondale, Ulster Co., N. Y., and warranted all pure.

Fowls to be sent a distance, will be carefully cooped in good health and condition, and forwarded by Express or Rail Road from Newburgh as ordered.

LINDLEY M. FERRIS,
Feb. 1—w&m1t Coldenham, Orange Co., N. Y.

THOMAS GOULD,

BREEDER of Durham and Devon Cattle, Leicester Sheep, Suffolk Swine. Madagascar or Lop-eared Rabbits, English Ferrets, Guinea Pigs, Choice and Fancy Poultry.

Jan. 18—w&m1f Aurora, Cayuga Co., N. Y.

PURE BRED ANIMALS**AT PRIVATE SALE.**

MOUNT Fordham, Westchester Co., 11 miles from City Hall, New-York, by Harlem Railroad.

HAVING completed the sale of my domestic animals, as advertised in Catalogue of 1854, excepting Short Horn Bull BALCO (9918), and at prices highly remunerative, for which patronage I feel grateful, not only to the public of almost every State in our Union, but to the Canadas, Cuba, and the Sandwich Islands, I will issue about the 1st of March, a Catalogue for 1855, consisting of Short Horned Bulls and Bull Calves, (some of which belong to my friend and part associate, Mr. N. J. BECAR,) North Devon Bulls and Bull Calves, Southdown Rams, Suffolk, Berkshire and Essex Swine, now ready for delivery, of almost all ages, and of both sexes. This Catalogue will be illustrated with portraits of my Prize Animals. Most of the original animals of my breeding establishment, were selected by me from England in person, and strictly in reference to qualities, in my judgment, best adapted for the use of this country.

Feb. 1—w&m1f

L. G. MORRIS.

IMPROVED SHORT-HORNS.

DURHAM Bull and Heifer Calves, descended from the herds of Mr. Bates and his nephew Mr. Bell, for sale.

HERMAN WENDELL, M. D.

Albany.

PURE BLOOD DEVONS.

SANCHO, 2 years old last spring—awarded premium at State fair in 1853.

Stately, 10 years old—Beautiful figure.

Sancho the 2d, 8 months old.

Also 4 Pure Blooded French Merino Ewes.

The Devons are from Mr. R. H. Van Rensselaer's of Morris, Otsego Co., N. Y. The French Merinoes from A. L. Bingham's, Vt. The best of references can be given for the above—also their proper Pedigree.

PELEG WEEDEN.

Jan. 4—wif Preston Hollow, Albany Co., N. Y.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by Feb. 1—mly. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OFF pure blood, for sale by Feb. 1—mly. B. V. FRENCH, Braintree, Mass.

ENGLISH CATTLE,

Imported on commission by Messrs. THOS. BETTS BROS., Bishop's Stratford, Herts, England—\$1 Maiden Lane, New-York City.

Being much the cheapest and the only way of obtaining Stock direct from the Breeder, which will give gentlemen an opportunity of obtaining the best stock, without having to pay an exorbitant price for them in America. The firm having had forty years' experience, they feel confident of giving satisfaction both as regards price and selecting the stock from the best herds in England.

Thorough-bred Horses,	Hampshire Sheep,
Short-Horned Cattle, .	Cotswold, Leicester do
Devons, Herefords, Ayrshires,	Suffolk Pigs,
Alderney Cows from Islands	Essex, Berkshire do
of Alderney and Guernsey,	Merino Sheep from Spain,
Pure bred Southdown Sheep,	Mules, do do

Messrs. Betts Bros. have appointed one of the most experienced men in England entirely for purchasing Thorough Bred Horses. They have also an agent in Spain for purchasing mules, Merino Sheep, etc. Messrs. Betts Bros. have purchased a valuable patent invention which will prevent accidents occurring to cattle across the Atlantic. They can now be safely imported any time during the year. The cattle will be insured from Liverpool to New-York when desired, by charging a small per centage.

A steamer will leave Liverpool with cattle about the first of every month. The stock will be delivered at New York about six weeks from the time the order is given in America.

Circulars containing all particulars, expenses to America, and the prices of Cattle in England, may be had by applying by post to Messrs. THOS. BETTS,
or, J. M. MILLER, Agent, 81 Maiden-lane.

Jan. 4—lau—mly. New York City.

Notes for the Month.

As an inducement to agents to exert themselves to obtain subscriptions, aside from the consciousness of the benefit they will confer upon their neighbors and the community by bringing such works into more general circulation, we offer the

Following Premiums.

1. FOR THE LARGEST AMOUNT OF CASH paid in before the 10th of April next, whether for *The Cultivator* alone, or for the *Country Gentleman*, or for the *Illustrated Annual Register*, or for all three together, according to their respective terms—FIFTY DOLLARS.

2. To the one sending us the next largest amount, FORTY-FIVE DOLLARS.

- 3. For the next largest, FORTY DOLLARS.
- 4. For the next largest, THIRTY-FIVE DOLLARS.
- 5. For the next largest, THIRTY DOLLARS.
- 6. For the next largest, TWENTY-FIVE DOLLARS.
- 7. For the next largest, TWENTY DOLLARS.
- 8. For the next largest, FIFTEEN DOLLARS.
- 9. For the next largest, TEN DOLLARS.
- 10. For the next largest, FIVE DOLLARS.

VALUE OF GUANO.—A correspondent (X. L.) from a single experiment, has come to the conclusion that guano “will soon be numbered among the humbugs of the past,” and that “the venders of the article have lived long enough on gulling the people.” We merely mention this to show the great impropriety of drawing such hasty conclusions from single experiments, for notwithstanding the enormous prices paid for guano (\$50 to \$60 per ton) its use is yearly increasing in the country, and especially in the older portions and on the more worn-out soils of the Union. It is true, it requires more care and skill in application than that excellent and universal fertilizer, yard manure, and consequently is more easily affected in its results than the latter; but we have numerous instances of its great power in promoting vegetable growth, which it could never do if it were only a “humbug.” We cannot say why our correspondent failed, but it is evident there were some sufficient causes, which he has not mentioned, or may not know. Adulteration of the article, so common in England, we think more rare here, partly in consequence of intelligent farmers being always readers of agricultural journals, which are, with a very few exceptions, great checks on imposition; and partly from the fact that it is bought more directly from responsible dealers. Its high price alone, is a great drawback on its general applicability, and every good farmer will buy it only when he fails to secure enough of the elements of fertility through the best managed yard manure factory.

IMPROVED STOCK.—We have the pleasure of giving to our readers this week, a very fair portrait of Mr. MORRIS’ beautiful Short Horn cow “Bloom,” and would call attention to Mr. M’s. advertisement, from which it will be seen that, having sold, with one exception, the entire list of animals included in his last year’s Catalogue, he is about to issue a new list, embracing such animals as he will have for sale during the present year.

CORN BUG—Mr. T. LOWRY of Rockville, Indiana, writes:—“The past has been an exceedingly hard season on farmers in this section of country. The spring floods and summer drouth, left us with but little corn Our hay and oat crops pretty good. Wheat good in places. My own wheat was entirely destroyed by some kind of fly. In Clay county, some fields of corn were destroyed by a fly or bug. People there thought that

it was bred in the wheat fields, and then moved into the corn. It would fasten on the stalk and suck out the sap and kill it. It was described as being a little larger than the gnat, dark color, with a white spot on the back—wings like a bug—when crushed it emitted an odor resembling a bed-bug.”

LARGE HEIFER.—I send you the live and dressed weights of a two-year old heifer, raised and fattened by NATHANIEL BARNS of this town. She was a grade Durham—calved April 25, 1852—slaughtered Feb. 1, 1855. When last weighed alive (Jan. 10,) her weight was 1240 lbs. Her dressed weight was

Quarters,	770 lbs.
Rough tallow,	70 "
Hide,	70 "
Total,	910 "

She was never fed any grain until Nov. 1st, 1854. For a heifer of the age, I think her weight unusual. W. D. BARNS. Newburgh, N. Y., Feb. 3, 1855.

HO! FOR MADAGASCAR.—Listen, ye who boast of the doings of nine-pounds hens and twelve pounds roosters! The shell of an egg, laid by one of the gigantic birds of Madagascar, has been received in Paris, the shell of which holds nearly ten quarts! This is a fact; and though the rage for big chickens is decidedly on the wane, we would suggest that some enterprising breeder send to the great African Island and import some of these hens, or at least a few of the eggs! They would doubtless take all the premiums at our Poultry Shows; at least so long as size rather than form is the test of excellence.

AG. PROGRESS IN IOWA.—A letter from a friend in Iowa says—“When I came to this state, about four years ago, there was not an Ag. Society in it. We now have a State, and over thirty County Societies. The legislature this winter has donated to the State Society, \$1000 per annum. This state offers the highest inducements for agricultural pursuits, and a vast extent of the finest part of it is still open, inviting emigration.”

TRANSACTIONS of the New-York State Agricultural Society for 1853—This volume, for which we are indebted to the attention of B. P. JOHNSON, secretary of the Society, is one of the best that has yet appeared. The matter is of a more select and permanent nature than a large portion to be found in some of its predecessors. Among the more able and valuable portions of this collection, we may enumerate the address of WM. C. RIVES, of Virginia, before the State Fair at Saratoga; the lecture of Prof. Wilson, on the culture of Flax, which is in itself a very full treatise on the treatment and uses of this crop; the report of J. STANTON GOULD on the Machinery exhibited at Saratoga: that of Prof. COOK on the composition, value, and manufacture of salt in different localities; the plan and description of the extensive Farm Buildings of LEWIS F. ALLEN, of Black Rock; the reports of the minute, varied, extensive and accurate experiments of several cultivators on the Potato; the culture and uses of Indian corn, including many excellent modes for cooking it, by C. N. BEMENT; and the full and extensive dairy reports from Herkimer county, contained among the accounts of the county Societies. There are many other smaller papers of much value. In a succeeding number, we intend giving some account of the contents of the more valuable contributions contained in this volume.

POULTRY.—A subscriber at Aurora, Cayuga Co. says—“Dry as the season has been, our farmers managed to raise some poultry last season. One firm in this town, have shipped to New-York at least ten tons of poultry, and there are several others engaged in the business.”

MORE GOOD HOGS.—A correspondent writes that ELIHU GIFFORD, Esq., of Easton, Wash. Co. N Y., has recently killed, and marketed, 17 fat hogs, which together weighed 7738 pounds, averaging 455 pounds each. He sold them for \$580.35. They were small boned hogs, about 20 months old, and were fattened on cooked food, which, for the last 6 weeks of the feeding, was meal made of 2 parts corn on the cob and 1 part oats ground together; but earlier in the fall he cooked some kind of meal with pumpkins, &c. B.

A GOOD PIG.—A correspondent, Mr. R. S. STODDARD, informs us that Capt. CHARLES CRANDALL, of Gales Ferry, killed a pig the 21st of Dec., nine months and twenty days old, which weighed 443 lbs.

BUCKWHEAT IN OREGON.—A subscriber in Columbia county, Oregon, informs us that he harvested the past season, sixty bushels of buckwheat, the product of half a bushel seed sown on an acre.

PRUNING CURRANTS.—The treatment for the production of the largest and finest flavored currants, is by one M. D., given for them to be raised in small trees, close pruning, high manuring, &c. Another, recommends their being kept in bushes, old wood pruned out, &c.

Now, can you from *experiment*, say which method, with an equal amount of labor, would produce the greatest quantity of fruit? W. *Galesburg, Ill.*

Single "experiments" decide but little, and hence the diversity of opinions on the subject, according to the accidental success one way or the other. In our hot climate, single stems a foot high, have not resulted so well as very short ones. These admit of clean cultivation better than many stems with old wood kept well pruned back; the latter we have found rather the most productive.

Agricultural Societies.

VERMONT STATE AG. SOCIETY.—The annual meeting of this society was held at Middlebury, on the 11th inst., when the following list of officers were elected for the ensuing year:

President.—FRED'K HOLBROOK, of Brattleboro.
Vice Presidents.—Edwin Hammond, Henry S. Morse, Henry Keyes, Solomon W. Jewett.
Cor. Secretary.—J. A. Beckwith, Middlebury.
Rec. Secretary.—Charles Cummings, “
Treasurer.—Edward Seymour, Vergennes.
Auditor.—Fred. E. Woodbridge.
Additional Directors.—George F. Hodges, E. B. Chase, J. W. Vail, John Gregory, A. L. Bingham, David Hill, John Howe, Jr., J. W. Colburn, B. B. Newton.

CONNECTICUT STATE AGRICULTURAL SOCIETY.—This young society is in a highly prosperous condition. The annual meeting was held at Hartford, Jan. 3rd. Hartford is fixed upon as the place for holding the next exhibition. The Treasurer's report shows a flourishing pecuniary condition. The receipts for the past year have been \$12,743 20; the expenditures, \$7,504 77. The following officers were elected for the ensuing year:

President.—Samuel H. Huntington, of Hartford.
Vice Presidents.—Charles H. Pond, of Milford, and Nathaniel B. Smith, of Woodbury.
Cor. Sec'y.—Henry A. Dyer, of Brooklyn.
Rec. Sec'y.—John A. Porter, of New-Haven
Treasurer.—John A. Porter of New-Haven.

COUNTY DIRECTORS.
Hartford—Frederick H. North, of Berlin.
New-Haven—Elias B. Bishop, of North-Haven.
Fairfield—Eliakim Hough, of East Bridgeport.
Litchfield—Theodore J. Gold, of Cornwall.
New-London—Erastus Williams, of Norwich.
Middlesex—Brainerd Montague, of Middletown.
Windham—Henry Hammond, of Killingly.
Tolland—R. B. Chamberlain, of Coventry.

PENNSYLVANIA STATE AG. SOCIETY.—The following persons were elected officers of the State Society for the ensuing year, at the annual meeting held at Harrisburg last week:—

President—JAMES GOWEN, Germantown.

Vice Presidents—Isaac B. Baxter, A. T. Newbold, William C. Rudman, Algernon S. Roberts, Thomas P. Knox, Abram R. M'Ilvain, William Stavey, Henry A. Robertson, John Strohm, John P. Rutherford, Amos Knapp, George W. Woodward, Agustus Lukensbaugh, William Jessup, H. N. M'Allister, Jacob S. Haldeman, William Heister, John S. Isett, John M'Farland, John H. Ewing, John Murdock, William Martin, Sr., William Waugh, William Bigler, James Miles.

Cor. Secretary—A. L. Elwyn.

Chemist and Geologist—S. S. Haldeman.

Librarian—David Mumma.

The following gentlemen were elected additional members of the Executive Committee: Frederick Watts, John S. Evans, A. O. Heister, Isaac G. M'Kinley, Simon Cameron

NEW-JERSEY STATE AG. SOCIETY.—A large meeting of the friends of Agricultural improvement met in Trenton on the 24th ult., when, after some discussion, a State Ag. Society was formed and a constitution adopted. A committee was appointed to nominate officers of the Association, and their report was adopted as follows:

President—CHARLES S. OLDEN, of Mercer.

Vice Presidents—John R. Sickler of Gloucester; Lewis Perrine, of Mercer; James Campbell, Somerset; Aaron Robertson, Morris; Charles M. Saxton, Essex—(one from each Congressional District.)

Cor. Sec'y—J. H. Fraze, of Somerset.

Rec. Sec'y—F. P. Autin, of Mercer.

Treasurer—J. S. Chambers, of Mercer.

HERKIMER COUNTY AG. SOCIETY.—The following are the officers elected by this Society for the present year:

President.—Col. GEO. B. JUND, Frankfort.

Vice President.—June Richardson, Schuyler

Sec'y.—Wm. Dygert, Frankfort.

Treasurer.—J. A. Rasbach, Ilion.

Executive Committee.—Daniel Mason, James Folis, Geo. W. Joslin, Frankfort; Hon. Ezra Graves, Herkimer; Samuel H. Kinney, Litchfield; Amos Gilbert, Winfield; Wm. P. Pruyne, Schuyler; J. D. Ingersoll, German Flatts, and L. F. Hawks, Columbia.

LEWIS CO. AG. SOCIETY.—The following officers have been elected by this society for the ensuing year:

President.—SANFORD COE, West Turin.

Vice Presidents—Wm. C. Miller, Geo. Woolworth, Jas. R. Treat, John Benedict, Harrison Blodget, D. A. Stuart, Gilbert E. Woolworth, John M. Patis, David H. Higby, Seymour Green.

Rec. Secretary—Chas. C. Riggs.

Cor. Secretary—Chas. D. Adams

Treasurer—M. M. Smith.

Executive Committee.—Abm. I. Mereness, Albert Foster, Edmund Baldwin, Lewis Stephens, John D. Lord

CLINTON CO. AG. SOCIETY.—At an annual meeting held in Plattsburgh, on the 24th ult., the following officers were elected:—

President—JOHN W. BAILEY, Plattsburgh.

Sec'y—John L. Stetson. do.

Treasurer—Zephaniah C. Platt, do.

Vice Presidents—John W. Hubbel, Chazy, Isaac Smith, Plattsburgh; Stephen R. Smith, Peru; Silas M. Taylor, Schuyler Falls; A. J. Moses, Champlain; T. G. Whitney, Mooers; O. B. Lapham, Peru; John Nichols, Plattsburgh; Thomas Crook, Beekmantown; Peter Keese, Ausable.

MONROE COUNTY AG. SOCIETY.—The officers of this society for the ensuing year are:

President—STEPHEN LEGGETT, Henrietta.

Vice Presidents—SELDEN C. BANNING, Ogden, W. Hodges, Brighton.

Treasurer—E. S. Hayward, Brighton.

Cor. Secretary—A. E. Harmon, Wheatland.

Rec. Secretary—E. R. Hallock, Rochester.

WINDHAM (CT) AG. SOCIETY.—At the annual meeting of the Windham Co. Ag Society, held on the 20th of Dec. last, the following list of officers were chosen:

President—Col. CALVIN D. WILLIAMS, Pomfret.

Vice Presidents—Henry A. Dyer, Brooklyn; David Gallup, Plainfield; Ezra L. Dean, Woodstock.

Rec. Sec'y—Jns. B. Whitcomb, Brooklyn.

Cor. Sec'y—Albert Day, Brooklyn.

Treasurer—John Gallup, 2d, Brooklyn.

Auditors—Olney Tanner, William H. Putnam, Amos J. Gallup.

Seymour's Patent Grain Drill.

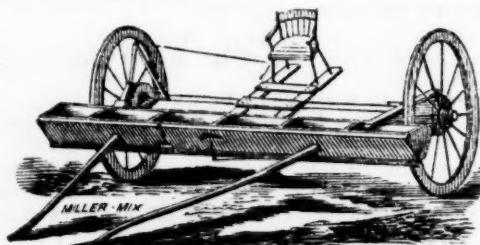
THIS machine is unrivalled by any Drill yet presented to the public. It was thoroughly tested at the great Trial of Implements at Geneva in July 1852, where it was awarded the first prize. It has also received the first prize at several State Fairs. The machinery is remarkably simple, permanent and easily kept in repair, and all the parts are so clearly presented to the view of the operator, that he can readily see if any thing is not correct; and the grain falls from the seed box to the tubes, (a space of several inches,) in full view, so that in passing over the field, he may be constantly assured that the seed is deposited as is designed. The usual size is made with nine teeth, eight inches apart; but any other size, and teeth any other distance apart, can be made to order. **THIS DRILL WITH NINE TEETH RUNS EASIER THAN SOME DRILLS WITH ONLY SEVEN TEETH.** The teeth are all placed in one rank, unless ordered to be put in two ranks. It is believed by those who have made experiments, and given the subject their careful attention, that the evils caused by lumps, stones, &c., being thrown by the teeth in the hind rank into the furrows made by the teeth in the front rank, are, in most cases, far greater than the advantages gained. This fact has induced the inventor to construct his **DOUBLE-RANKED DRILL** so that the teeth can all be placed in one rank, at pleasure, thus obviating, in this drill, the objection to all other two-ranked drills. The price of the drill, with teeth in two ranks, is ten dollars higher than those with teeth in but one rank.

A VALUABLE IMPROVEMENT was made in the drill in 1851, which prevents the shrinking and swelling of the wood from affecting the correctness of its operation. This drill is made small enough to be drawn by hand for garden purposes, when ordered. The Garden Drill answers admirably for apple and pear seeds, and all kinds of garden seeds, planting at one operation, four rows at one foot distance—three rows at $1\frac{1}{2}$ feet, or two rows at three feet distance.

The following are the advantages this drill possesses over other Grain Drills, viz.: It sows all grain and seeds, from peas and corn, to grass seed, as well as any other drill sows wheat, not failing thus to perform in sowing even beet or carrot seed; and it is difficult to clog it with any of the trash and foul stuff commonly found in grain, such as straw, chaff, stems of tare or other weeds. It will also sow any grain soaked and rolled in lime, plaster, ashes, guano, poudrette, &c., &c. It also sows lime, plaster, ashes, and all dry fertilizers which are fine enough to pass through the Machine. It may also be used for planting corn, beans, &c. in drills, for which purpose there is nothing better. Whatever it will sow in drills it will just as readily sow broadcast, by removing the drill tubes, which is very easily done. It is remarkably simple in its construction, and very durable. It is easily understood and kept in order by common laborers, or repaired by common mechanics, such as are at hand in nearly every neighborhood or town.

The price is but little in advance of any other approved grain drill, and quite below that charged for many which are far less adapted to the wants of the farmer or planter than this,—and in view of its utility, simplicity, convenience and durability, it is believed to be by far the cheapest drill in the world.

When ordered, the following extras are added to the drill:—
1. A "FEEDER," to prevent clogging in sowing damp plaster and other fertilizers. 2. A "GRASS SEEDER," which is a box and fixings for sowing Grass Seed Broadcast, in front of the drill teeth, while drilling; or it may be used while sowing plaster broadcast from the main box. 3. A set of HORSE HOES to cultivate the wheat in the Spring. The drill teeth are removed and these are put in their place. With these extras added, the Machine is capable of sowing grass seed, hoeing the wheat, (which also hoes in the grass seed) and sowing plaster all at once.

**Seymour's Patent Broadcast Sowing Machine.**

This Machine is well known in Western New-York, also in many other parts of the United States, and is universally acknowledged to be the best implement in our country for the purpose for which it was intended. It sows correctly all kinds of grain, (and any desired quantity per acre) from peas to grass seed, including wheat, rye, oats, barley, buckwheat,

rice, hemp, flax, clover and timothy seed; also plaster, lime, salt, ashes, bone dust, &c., &c. It is capable of dusting every inch of ground on an acre of land, with less than half a bushel of plaster, and thirty or forty bushels of lime may be thus evenly applied to the same amount of land. It sows ten feet wide, or may be made narrower to order.

Mr. P. SEYMOUR—Dear Sir: I have been familiar with the operation of your Broadcast Sower and your Grain Drill, for some years, and justice requires me to say that I think them equal to any machines of the kind, *in all respects*, and *far superior in the most important, viz: the manner of discharging the grain, manure, plaster, &c., from the hopper.*

ENOS BOUGHTON.

Those who know Mr. Boughton will put the most implicit confidence in his commendation. These machines are in use by many of the first farmers in the States of New-York, Ohio, Indiana, Illinois, Missouri, South Carolina, Virginia, Kentucky, Iowa, Wisconsin, Michigan, Pennsylvania, Maryland, Delaware, New Jersey and Tennessee, and also in Canada, to all whom we refer for their reputation, believing that all who have given them a fair trial will commend them.

☞ Directions for using, accompanying each machine. All communications promptly attended to.

PRICES—Drill with 7 teeth \$80; 9 teeth \$90; 11 teeth \$100. Broadcast Sower \$55; Garden Drill \$40; Extras to the Drill when ordered, Feeder \$6; Horse Hoes \$2 each; Grass Seeder \$15.

C. H. SEYMOUR, Manufacturer.

P. SEYMOUR, Patentee

East Bloomfield, Ontario Co. N. Y., Feb. 22, 1855

**Albany Agricultural Works,**

On Hamilton, Liberty and Union Sts., Albany, N.Y.

THE proprietors of the above named establishment, being the sole owners and manufacturers of

Emery's Patent Horse Power,

All arrangements with other parties for their manufacture having expired, have formed a copartnership under the firm name of **EMERY BROTHERS**, and will continue the manufacture and sale of **AGRICULTURAL IMPLEMENTS AND MACHINERY** as heretofore, at the old stand of Emery & Co. By this arrangement, the united interests and efforts of the Brothers, long known to the public, are secured.

The public may rest assured that the reputation heretofore earned for our manufactures, shall be fully sustained, by using none but the best materials and workmanship; and by a strict attention to business, we hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed, which we respectfully solicit. Further particulars by mail. Descriptive Catalogues (a beautiful illustrated pamphlet,) furnished gratis by mail on application.

EMERY BROTHERS
Albany, March, 1, 1855—w&mtf

BLACK HAWK.

THE original VERMONT BLACK HAWK will serve a limited number of mares the coming season at \$100 each. Gentlemen wishing to secure the services of this horse, must send in their letters at once.

Good pasturing at 50 cents per week. All accidents and escapes at the risk of the owner. DAVID HILL,
March 1, 1855—m5t Bridport, Addison Co., Vt.

Farm Lands for Sale.**The Illinois Central Railroad Company**

Is now prepared to sell over Two Millions of Acres of Prairie Farm Lands, in Tracts of Forty Acres or upward, on Long Credit and at Low Rates of Interest!

THEY were granted by the Government, to encourage the building of this Railroad, which runs from the extreme North to the extreme South of the State of Illinois. The road passes, from end to end, through the richest and most fertile Prairies of the State, dotted here and there with magnificent Oak Groves. The recent opening of nearly six hundred miles of the Company's Railroad throws open their lands for cultivation, they being scattered for several miles in width, on each side of the road, throughout its entire length.

The soil is a dark, rich mold, from one to five feet in depth, is gently rolling, and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc.

The economy in cultivating and the productiveness of Illinois lands are well known. Trees are not required to be cut down, stumps grubbed, or stone picked off, as is generally the case in the cultivating of new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and sometimes that of fencing. Wheat sown on the newly-turned sod is sure to yield very large profits. One man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from \$2 to \$2.50 per acre. By judicious management, farms may be broken and fenced the first, and under a high state of cultivation the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market. The rapid increase and growth of flourishing towns and villages along the line afford a substantial and growing home demand for farm produce.

Bituminous coal is mined at several points along the road and is a cheap and desirable fuel.

Price and Terms of Payment.

The price will vary from \$5 to \$25, according to location, quality, etc. Contracts for deeds may be made during the year 1855, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will come due at the end of the sixth year from the date of the contract.

Interest will be Charged at only 2 Per Cent Per An-

As a security for the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that from one-tenth to one-fourth of the land purchased shall yearly be brought under cultivation. Large credits at six per cent. per annum, may be negotiated by special application. Twenty per cent from the credit price will be deducted for cash. The Company's construction bonds will be received as cash.

Contracts have been made with responsible parties to keep on hand

Ready-Framed Farm Dwellings,

Which can be set up in a few days. They will be 12 by 20 feet, divided into one Living and three Bed-rooms, and will cost complete—set up on ground chosen anywhere along the Road. \$150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly, charging for the cheapest class at the rate of 11 cents for every mile transported.

Special arrangements with dealers have been made to supply those purchasing the Company's land with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the lowest wholesale prices.

It is believed that the price, long credit and low rate of interest, charged for these lands, will enable a man, with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the meantime, the rapid settlement of the country will probably have increased their value four or five fold. When required, an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands throughout the State—also the cost of fencing, price of cattle, expense of har-

vesting, threshing etc., by contract—or any other information—will be cheerfully given on application, either personally or by letter, post-paid, in English, French, or German. Addressed to CHARLES M. DUPUY, Jr., Land Agent of the Illinois Central R. R. Co., Chicago, Ill.

Feb. 22—w1tm2t. J. N. A. GRISWOLD, President.

DELL & COLLINS,

Waterloo, Seneca Co., N. Y.,

INVITE the attention of Nurserymen, Dealers, Amateurs and Fruit Growers in general, to their stock of

FRUIT AND ORNAMENTAL TREES,

Embracing all the most hardy and valuable kinds for general cultivation. They would especially call the attention of the Fruit-grower, to their large stock of PEAR TREES, which for good quality and low price, they believe to be unrivaled. Also a general assortment of Fruits, from the Apple to the Strawberry.

A leading feature of their Nursery, is the cultivation of a great variety of NATIVE ORNAMENTAL TREES, both deciduous and evergreen. Without rejecting foreign trees, their main object has been to present as great a variety of the beautiful trees of our own country, as the taste of the most refined Amateur could desire: to accomplish which they have made, and are still making extensive Botanical researches. They have now on hand about 30,000 AMERICAN ARBORVITAE, one and two years transplanted, 6 in to 2 feet high, which will be sold low for cash, at wholesale or retail. Also Balsam Fir, Spruce, &c., from 6 in. to 6 feet; and a great variety of native Forest Trees, to which they expect to make great additions next season. Orders are respectfully solicited.

Dec. 30—w3t—m3t.

Desirable Nursery Establishment**FOR SALE.**

THE undersigned having other business arrangements in view, offer for sale the business and Establishment of the

Highland Nurseries, Syracuse, N. Y.

The Stock is quite extensive, and very good. It comprises every desirable variety of the Standard Fruits, and Hardy Fancy Stock, in every stage of growth, from saleable Trees to a large quantity of Fruit Seeds planted this Fall—with a well established business, and arrangements which may easily be completed for its indefinite extension.

From thirty to seventy-five acres of land, admirably adapted by location and soil for the business, will be sold or rented as may be desired by the purchasers of the Stock, on the most favorable terms.

Few or no Establishments in the State of its age, have a better reputation, or a more rapidly increasing business, and there is no better location than Syracuse, for conducting and extending it.

The whole will be sold at a bargain, and if not disposed of sooner, the stock will be sold in parcels on the opening of the Spring Trade.

Further particulars will be given on application to

BARNES, PHELPS & PUTNAM,

Jan. 5—w1tm2t. *Highland Nurseries, Syracuse, N. Y.*

Lawton Blackberry Plants.

C. M. SAXTON, 152 Fulton St., New York, Agent for C. W. LAWTON, will receive orders for Plants. The Plants will be put up in boxes in good shipping order, and will be ready to deliver in March.

As our supply is limited, we shall keep a Register of orders and they will be sent in the order received.

Price ten Dollars per doz. The money must accompany the order. Address C. M. SAXTON,

Dec. 28—w2t—m2t. 152 Fulton-St., New-York

PURE BRRD FOWLS.

THE subscriber has for sale—

Brahma Pootra Fowls.

White Shaughae "

" Palmer " do "

Imperial Chinese "

Hong Kong "

Wild Indian Mountain do—

Bred from selected stock, and warranted pure. Boxed and sent by Express to any part of the Union.

Apply to

WILLIAM B. SMYTH,

Dec. 21—w3t—m3t. New-Britain, Conn.

Osage Orange Seed.

75 BUSHELS prime Osage Orange Seed, for sale by

JOHN F. DAIR & CO.

Seed Store, Cincinnati, Ohio.

Feb. 22—3t*

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4, 1821.

Weekly Edition between 80,000 and 90,000.

THE long period of over THIRTY-THREE YEARS, during which the SATURDAY EVENING POST has been established, and its present immense circulation, are guarantees to all who may subscribe to it that they will receive a full return for their money. Our arrangements so far for the present year, (1855,) are such as we trust will be thought worthy of the high reputation of the Post. POSITIVE ARRANGEMENTS already have been made for contributions from the gifted pens of

MRS. SOUTHWORTH, GRACE GREENWOOD, MRS. DENISON, MARY IRVING,
ELIZA L. SPROAT, ALICE CAREY, METTA VICTORIA FULLER,
FANNY FERN,

And a NEW CONTRIBUTOR, (whose name by request is withheld.)

We are now (February) publishing a Novelet by GRACE GREENWOOD, entitled

THE MINISTER'S CHOICE.

We purpose following this with an Original Novelet—designed to illustrate, incidentally, the great EVILS OF INTEMPERANCE—entitled

THE FALLS OF THE WYALUSING.

By a new and distinguished Contributor.

We have also made arrangements for TWO SHORT NOVELETS, to be entitled

THE ONEIDA SISTERS, AND

THE NABOB'S WILL,

By GRACE GREENWOOD, Author of "Greenwood Leaves," "Haps and Mishaps," &c.

Also the following additional contributions:—

NEW SERIES OF SKETCHES,

By FANNY FERN, Author of "Fern Leaves," &c.

MARK, THE SEXTON,

A Novelet bearing upon the subject of "SPIRITUALISM," by MRS. DENISON, Author of "The Stepmother," "Home Pictures," &c.

NANCY SELWYN, or the Cloud with a Silver Lining.

A Novelet, by MARY IRVING.

And last, but by no means least—from the fascinating and powerful pen of the Post's own exclusive contributor—

VIVIA,

A STORY OF LIFE'S MYSTERY.

By MRS. EMMA D. E. N. SOUTHWORTH, Author of "Miriam," "The Lost Heiress," &c. &c. &c.

In addition to the above proud array of contributions, we shall endeavor to keep up our usual variety of ORIGINAL SKETCHES AND LETTERS, PICTURES OF LIFE in our own and Foreign Lands, CHOICE SELECTIONS from all sources, AGRICULTURAL ARTICLES, GENERAL NEWS, HUMOROUS ANECDOTES, View of the PRODUCE AND STOCK MARKETS, BANK NOTE LIST, EDITORIALS, &c. &c.—our object being to give a Complete Record, as far as our limits will admit, of the Great World.

ENGRAVINGS.—In the way of Engravings, we generally present at least two weekly—one of an instructive, and the other of a humorous character.

The Postage on the Post to any part of the United States, paid quarterly or yearly in advance, at the office where it is received, is only 26 cents a year.

TERMS.

The terms of the POST are Two Dollars a year, payable in advance. For Five Dollars, *in advance*, one copy is sent three years. We continue the following low terms for clubs, to be sent, in the city, to one address, and, in the country, to one Post Office:

4 COPIES,.....	\$5.00 PER ANNUM.
8 " (And one to the getter up of the Club),.....	10.00 "
13 " (And one to the getter up of the Club),.....	15.00 "
20 " (And one to the getter up of the Club),.....	20.00 "

The money must always be sent in advance. Address, *always post-paid*,

DEACON & PETERSON,

No. 66 SOUTH THIRD STREET, PHILADELPHIA.

N. B.—Any person desirous of receiving a copy of the POST as a sample, can be accommodated by notifying the publishers by letter, (post-paid.)

TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions and our terms,) for their *editorial* columns, shall be entitled to an exchange, by sending us a marked copy of the paper containing the advertisement or notice.

Feb. 15—wltm

Albany Agricultural Works,

Warehouse and Seed Store, 309 and 371 Broadway, Albany.
THE subscriber having purchased the stock in trade of the above works, is now prepared to furnish to order a full assortment of Farm Implements and Machines adapted to all sections of the country, both north and south, among which may be found—

"Emery's Patent Changeable Railroad Horse Powers."

Overshot Threshing Machines with Separators.

Mowing and Reaping Machines.

Grist-mills, Corn-shellers and Clover-hullers.

Circular and Cross-cut Saw-mills, adapted to the horse power, for cutting fire wood and fence stuff, with a full and complete assortment of FIELD AND GARDEN SEEDS and FERTILIZERS. For further particulars, full Catalogue will be sent on application by mail.

RICH'D H. PEASE,
Successor to Emery & Co

March 30—w&mtf

Ditch Diggers, Tile and Brick Machines,

Manufactured by PRATT & BROS., Canandaigua, N. Y.

THE Ditch Digger and Tile Machine were constructed to cheapen and extend Drainage. Ditches must be made cheaper and faster, and Tile must be made easily, simply and extensively. The Farmer feels it and agriculture demands it: and we beg leave to say to all interested, that these machines will accomplish the object.

We warrant our Ditch Digger to be capable of cutting from fifty to 150 rods of Ditch in a day, by the use of one man and two horses, not less than $2\frac{1}{2}$ feet deep; and that this implement is made in a thorough and workmanlike manner.

We warrant our Tile Machine to be capable of making from tempered clay, 10 to 15,000 Tile or Brick in a day, by the use of two horses—grinding the mud and making the Tile or Brick at the same time and by the same operation—using steam or water power with equal facility.

This Tile Machine enables Brick makers to make Tile and Tile makers to make Brick, changing from one to the other in less than 5 minutes, and the cost of the Machine is no more than those in ordinary use, it being the simplest arrangement known. The quality of Brick made, is but a little inferior to pressed Brick.

Farmers, if you want Tile made cheap and near you, see yourselves that it is done. See to it that *some one* gets a machine and makes them. Farmers, if you want Ditches made quickly and cheaply, buy a Ditch Digger, or find a man that will do it. Farmers and others, if you want to see these machines at work, come when frost has disappeared and see them. We shall be ready, and take pleasure in showing them to you.

Brick makers, do you want to change your business for the better? Then make Tile and better Brick, and you will be the gainer, and agriculture accommodated. We have a large number of Tile Dies from which to select.

Dealers in Agricultural Implements, we will supply you on favorable terms. Persons wanting exclusive Patent privileges, we will negotiate with you. All, wanting any further information, will please address PRATT & BROS.

Canandaigua, N. Y.

FARMERS AND GARDENERS

WHO cannot get manure enough, will find a cheap and powerful substitute in the IMPROVED POUDRETTE made by the subscribers. The small quantity used, the ease with which it is applied, and the powerful stimulus it gives to vegetation, render it the cheapest and best manure in the world. It causes plants to come up quicker, to grow faster, to yield heavier and ripen earlier than any other manure in the world, and unlike other fertilizers, it can be brought in direct contact with the plant. Three dollars worth is sufficient to manure an acre of corn. Price, delivered free of cartage or package on board of vessel or railroad in New-York city, \$1.50 per barrel, for any quantity over six barrels; 1 barrel, \$2; 2 barrels, \$3.50; 3 barrels, \$5.00; 5 barrels, \$8.00. A pamphlet with information and directions will be sent gratis and post-paid, to any one applying for the same.

Address, the LODI MANUFACTURING COMPANY,
74 Cortlandt Street, New-York.

WATERTOWN, Mass., Oct. 19, 1854.

Lodi Manufacturing Company:

Gentlemen—at the request of John P. Cushing, Esq. of this place, I have, for the last five years, purchased from you 200 barrels of POUDRETTE per annum, which he has used upon his extensive and celebrated garden in this town. He gives it altogether the preference over every artificial manure, (Guano not excepted,) speaks of it in the highest terms as a manure for the kitchen garden, especially for potatoes.

I am, gentlemen, very respectfully,

Your obedient servant,

BENJAMIN DANA.

Jan. 18—w1am4t—m4t

**KETCHUM'S MOWER,**

WITH REAPER ATTACHMENT,

Manufactured by HOWARD & Co., Buffalo, N. Y.

KETCHUM'S celebrated Mowing Machine, has been improved by the addition of a Reaper Attachment, and we now offer it as a Mower, or as a Mower and Reaper combined, with full confidence that it is the most perfect and successful Machine now in use. The change from a Mower to a Reaper (which means has been patented,) is effected by simply enlarging the main-wheel, by circular sections, bolted to the rim of the wheel. Some of the advantages obtained by this arrangement are—First—Raising the cutters sufficiently high for cutting grain. Second—Lessening the motion of the knives, without any change of gearing, which is very desirable in cutting grain, as much less motion is required. Third—Reducing the draft of the Machine at least one-third. Fourth—Raising the cogs of the driving-wheel, thereby preventing them being filled with dirt, as they otherwise would be, on stubble land. Fifth—Attaining the above named objects without the least change of any part of the Mower. We shall build for the harvest of 1855 the Combined Machines, with wrought iron frames and finger bars. Those manufactured expressly for mowing will all have wrought iron finger bars, but a portion of them with wood frames. Each Machine will have a good spring seat, and every part made in the most substantial manner, and warranted durable, with proper care. We have reduced the weight of the Mower about one hundred and fifty pounds, which we have found desirable, and have no doubt will improve them, by lessening their draft. We shall take the utmost pains to have our knives made of the best of steel, and well tempered.

We offer our Machines, and warrant them capable of cutting and spreading from ten to fifteen acres of any kind of grass per day: also warrant them capable of cutting the same amount of grain per day.

RUGGLES, NOURSE, MASON & Co., of Worcester, Mass., are manufacturing, and have the exclusive right to sell in the N. E. States. They are also manufacturing a one horse Mower, which they have a right to sell in any of the United States except the Western.

SEYMOUR, MORGAN & Co., of Brockport, N. Y., manufacture the Mowers for the States of Michigan, Illinois and Iowa.

WARDER, BROKAW & CHILD, of Springfield, Ohio, manufacture for the States of Kentucky, Missouri, Southern Indiana and Ohio, except the Western Reserve, which will be supplied by JAMES M. CHAMFLIN, Cleveland, Ohio.

Price of Mower, with extras, is \$110—Mower and Reaper, \$125, in Buffalo.

Jan. 18—w2m2t

Super-Phosphate of Lime.

THIS celebrated fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian guano, in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of phosphate, which is often the case. All crops are benefited by its application. It is composed of ground bones, decomposed by sulphuric acid, to which is added a due proportion of Peruvian guano, sulphate of ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,

5 Commercial, cor. of Chatham st., Boston.

Feb. 16, 1854—w&mtf

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March 1—w&m1t.

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Feb. 8—w2um1t*

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Newburgh, Feb. 22, 1855—w&m2m

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Feb. 15—w2tm1t

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